

Rio Grande River, Expert Report

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HISTORICAL
RESEARCH
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Table of Contents

1	STATEMENT OF QUALIFICATIONS	1
	EDUCATION AND EXPERIENCE	1
	PROFESSIONAL EXPERIENCE	1
	COMPENSATION	2
2	METHODOLOGY USED AND MATERIALS CONSIDERED	6
	HISTORICAL METHOD, GENERAL	6
	HISTORICAL METHOD, HISTORY OF HUMAN USE OF THE RIO GRANDE	7
3	DEFINITIONS AND OPINIONS RENDERED	9
3.1	DEFINITION OF TERMS	9
3.2	OPINIONS RENDERED	10
4	HISTORY OF WATER-BASED TRAVEL ON THE RIO GRANDE BETWEEN RM 275.5 AND 610, 1590-1922	12
	CROSSING THE RIVER: INDIGENOUS AND EUROPEAN USE OF FORDS AND WATERCRAFT, 1590-1848	12
	INDIGENOUS USE OF THE RIO GRANDE	12
4.1.1	SPANISH, MEXICAN, AND EARLY AMERICAN USE OF THE RIO GRANDE BEFORE 1848	14
4.2	MOVING UPSTREAM AND DOWNSTREAM BELOW LAREDO ON THE RIO GRANDE, 1749-1917	22
4.3	SURVEYING THE RIO GRANDE UPSTREAM FROM LAREDO, 1828-1916	37
4.3.1	JEAN LOUIS BERLANDIER AND THE MEXICO BOUNDARY COMMISSION SURVEY, 1828	38
4.3.2	WILLIAM EGERTON / RIO GRANDE AND TEXAS LAND COMPANY, 1832	40
4.3.3	MAJOR BROWN, FALL 1846	45
4.3.4	HARRY LOVE, SPRING AND FALL 1849	54
4.3.5	MAJOR BABBITT, SPRING 1850	61
4.3.6	JOINT U.S. AND MEXICO BOUNDARY COMMISSION SURVEY, 1852-1853	65
4.4	FORDS, FERRIES, AND WATERCRAFT ON THE RIO GRANDE AT EAGLE PASS-PIEDRAS NEGRAS, 1849-1908	76
4.4.1	FORDS, FERRIES, AND BRIDGES	76
4.4.2	MISCELLANEOUS WATERCRAFT AT EAGLE PASS-PIEDRAS NEGRAS BETWEEN 1848 AND 1922	91
5	CONCLUSION	94
6	BENJAMIN JOHNSON, PHD, EXPERT REPORT REBUTTAL	96
7	SIGNATURE	105
	EXHIBIT A: RESUME	A-1
	EXHIBIT B: DOCUMENTS CITED AND CONSULTED	B-1
	BOOKS AND ARTICLES	B-1
	NEWSPAPER ARTICLES	B-6
	GOVERNMENT DOCUMENTS	B-7
	COURT DOCUMENTS	B-12

CORRESPONDENCE
OTHER MATERIALS

B-14
B-17

List of Figures

Map 1	3
Map 2	4
Map 3	5
Figure 1. Alejandro Prieto, “Mapa de la Sierra Gorda, y Costa [del] Seno Mexico,” partial, to accompany Calleja’s report. Source: Vigness, “Nuevo Santander in 1795.”	25
Figure 3. “The <i>Bessie</i> at dockside,” unknown location, ca. 1902. Source: Kelley, <i>River of Lost Dreams</i> , 83.	34
Figure 4. Lithograph map of Laredo, 1890, depicting coal barge. Source: Kelley, <i>River of Lost Dreams</i> , 86.	36
Figure 5. Konen Marché, <i>Map of Texas Shewing the Grants in Possession of the Colorado and Red River Land Compy</i> , 1835. Source: University of Texas at Arlington Libraries Special Collections, Gift of Virginia Garrett. Reprinted in Carpenter, “Failed Venture,” frontispiece.	42
Figure 6. Rio Grande, at Presidio del Río Grande, and below, 1846. Source: Tilden, <i>Notes on the Upper Rio Grande</i> , Map No. 9.	49
Figure 7. Rio Grande, between Presidio del Río Grande and Laredo, 1846. Source: Tilden, <i>Notes on the Upper Rio Grande</i> , Map No. 8.	50
Figure 8. Rio Grande, between Presidio del Río Grande and Laredo, 1846. Source: Tilden, <i>Notes on the Upper Rio Grande</i> , Map No. 7.	51
Figure 9. Rio Grande, between Presidio del Río Grande and Laredo, 1846. Source: Tilden, <i>Notes on the Upper Rio Grande</i> , Map No. 6.	52
Map 4	53
Figure 10. Daniel M. Kingsbury, “Reconnaissance [<i>sic</i>] of the Rio Grande River” (section from Camp Ringgold/Rio Grande City to just downriver from Laredo), March/April 1849. Source: National Archives and Records Administration online, https://catalog.archives.gov/id/353765506 .	56
Figure 11. Daniel M. Kingsbury, “Reconnaissance [<i>sic</i>] of the Rio Grande River” (section from Laredo to Eagle Pass American Camp), March/April 1849. Source: National Archives and Records Administration online, https://catalog.archives.gov/id/353765506 .	57
Figure 12. Artists’ rendition of the <i>Major Babbitt</i> . Source: Walter, “Love on the Rio Grande,” 38.	61
Figure 13. “Las Isletas—Falls of the Presidio de Rio Grande,” ca. 1852-1853. Source: Emory, <i>Report</i> , plate between 68 and 69.	67
Figure 14. Rapids twenty miles below Eagle Pass on the Rio Grande, marking spot where Paul Cunningham drowned July 13, 1901, during a survey of the river from New Mexico to Laredo. Source: <i>Proceedings of the International (Water) Boundary Commission</i> , 1901, National Archives and Records Administration, College Park, MD.	70
Figure 15. U.S. Army Corps of Engineers, Reconnaissance Sketch of the Rio Grande from R.R. Bridge at Eagle Pass to a Point Opposite the Rio de los Soldados, September 21, 1916. Source: NARA Online.	72

Figure 16. U.S. Army Corps of Engineers, Reconnaissance Sketch of the Rio Grande from R.R. Bridge at Eagle Pass to a Point Opposite the Bates Ranch, October 16, 1916. Source: NARA Online.	73
Map 5	74
Map 6	75
Figure 17. “[Mexican] Military Colony Opposite Fort Duncan, Texas,” ca. 1852-1853. Source: Emory, <i>Report</i> , plate after 72.	77
Figure 18. “View of Fort Duncan, near Eagle Pass,” ca. 1852. Source: Emory, <i>Report</i> , color print from Fort Duncan, Texas, Vertical File, Briscoe Center for American History, UTA.	79
Figure 19. Eagle Pass [illegible] about 1873. Source: <i>Eagle Pass Daily Guide</i> , Jubilee Edition, July 3-5, 1936, image from Eagle Pass, Back-in-the-Day Facebook Page.	82
Figure 20. Piedras Negras from Eagle Pass, with ferry barge, boatmen, and skiffs, ca. 1870s-1880s, Source: Pingnot, <i>Paso de Águila</i> , 91.	84
Figure 21. Augustus Koch, <i>Bird’s Eye View of Eagle Pass Maverick Co, Texas, 1887</i> , note Texas and Coahuila Ferry Company cable barge and skiffs crossing from the base of Garrison Street in Eagle Pass to Piedras Negras. Source: Briscoe Center for American History, University of Texas, Austin.	85
Figure 22. International wagon bridge, Eagle Pass, Tex., 800 yards long, ca. 1890-1900. Source: Briscoe Center for American History, University of Texas, Austin.	86
Figure 23. “Foot Bridge between Eagle Pass, Texas., and C. P. Díaz, Mexico. (Showing Eagle Pass.),” ca. 1910? Source: Eagle Pass, Back-in-the-Day Facebook Page.	86
Figure 24. Fording cattle across Rio Grande at Eagle Pass-Piedras Negras, ca. 1890? Source: Eagle Pass, Back-in-the-Day Facebook Page.	87
Figure 25. Eagle Pass cable barge ferry and <i>chalanas</i> , view toward Eagle Pass, ca. 1890? Source: Maverick County Historical Society, Facebook Page.	88
Figure 26. “Carriers and chalanas. Piedras Negras, Mex.,” ca. 1900? View toward Eagle Pass and either (or both) Texas-Mexican Electric Light & Power Co. and Eagle Pass Ice Co. on riverbank. Source: Eagle Pass, Back-in-the-Day Facebook Page.	88
Figure 27. Ferry at Eagle Pass (likely on Piedras Negras side, upriver from railroad bridge), ca. 1906-1908. Source: Eagle Pass Back in the Day, Facebook page.	89
Figure 28. Ferry at Eagle Pass, ca. 1906-1908. Source: Eagle Pass Back in the Day, Facebook page.	89
Figure 29. “Trying out Pontoon Bridges, Eagle Pass, Texas,” ca. 1922. Source: Eagle Pass Back in the Day, Facebook page.	90
Figure 30. Eagle Pass, 1927 International Bridge (background) and site of pontoon bridge upriver (<i>foreground</i>), view toward Piedras Negras, ca. 1930s. Source: Elmer J. Edwards Photograph Collection, Briscoe Center, UTA.	91
Figure 31. Women, children, and young man on horseback, wading in stream (possibly Río Escondido?), ca. 1870s-1880s? Source: Eagle Pass, Back-in-the-Day Facebook Page.	92

1 Statement of Qualifications

My name is Heather Lee Miller. I have a PhD in history from The Ohio State University (2002). I am vice president and principal historian at Historical Research Associates, Inc. (HRA), in our Seattle office, 1904 Third Ave., Suite 240, Seattle, WA 98101.

Education and Experience

I graduated *cum laude* in 1993 from California State Polytechnic State University, San Luis Obispo, with a BA in history. In 1996, I received an MA in history from the University of Oregon. From there, I attended The Ohio State University, where I earned a PhD in history (focusing primarily on the nineteenth- and twentieth-century United States) in 2002. Each of these degree-granting programs (even at the BA level) focused closely on the historical method, which I applied to my senior thesis, master's thesis, dissertation, and many essays, articles, and reports I have written since. For four of my six years at Ohio State, I worked as managing editor of the *Journal of Women's History (JWH)*, which, along with graduate school writing seminars, developed in me a critical eye when reading other historians' written work. In that position, I collaborated with academic authors and editors on an urban history series, a women and health series, and other topics.

Many parallels exist between the research and analysis I did on U.S. history in graduate school, my work in journal and book editing, and what I have done for almost twenty years now as a consultant working in environmental history. Most important is that the historical method applies to any subject during any time at any location—the so-called historians' toolkit. In this report, I use the same tools as I use as an academic historian to formulate appropriate research questions and locate relevant primary and secondary documents from which to make evidence-based statements of fact or come to educated conclusions about the question of what kinds of uses people in the past had of the Rio Grande between river miles (RM) 275.5 and 610, and more specifically at Eagle Pass, Texas.

Professional Experience

From mid-2000 through early 2005, I worked full-time as humanities acquisitions editor for The Ohio State University Press as well as a freelance copy editor for primarily academic authors. I also conducted freelance historical research at the Ohio Historical Society for people who found my name on the freelancers' list there. I joined HRA in 2005. I have worked in both our History and Cultural Resources Management (CRM) divisions. I have been a shareholder in HRA since 2015 and

became vice president of business development in 2018. At HRA, I have worked on complex research and writing projects on federal, state, and local environmental and tribal litigation. In addition to conducting research on many rivers related to hydroelectricity and dams, I have extensively researched the history of another river, the Neosho, in Oklahoma and Kansas, using similar sources to those we located for this project.

During my tenure at HRA, I have presented papers and taken part in conferences and webinars on a variety of historical subjects. In addition to participating in national historical and environmental organizations such as the American Society for Environmental History, National Council on Public History, and National Association of Environmental Professionals (NAEP), I have attended the American Bar Association's Section of Environment, Energy, and Resources (ABA-SEER) conferences regularly since 2013. I became a section member in 2019, when I joined the now disbanded Hydropower Committee. In 2022, I became a vice chair of the Environmental Litigation and Toxic Torts Committee and facilitated the committee's chapter of SEER's 2023 *Year in Review* publication. I continued in that role for the 2023/2024 year for the newly created Enforcement and Litigation Committee and edited and compiled the 2024 *Year in Review*. I was on the planning committee for the 2024 NAEP conference and am currently on the planning committee for the Fall 2024 ABA-SEER conference, for which I am putting together a panel on contaminated waterways. I recently accepted the role of co-chair of the ELC committee.

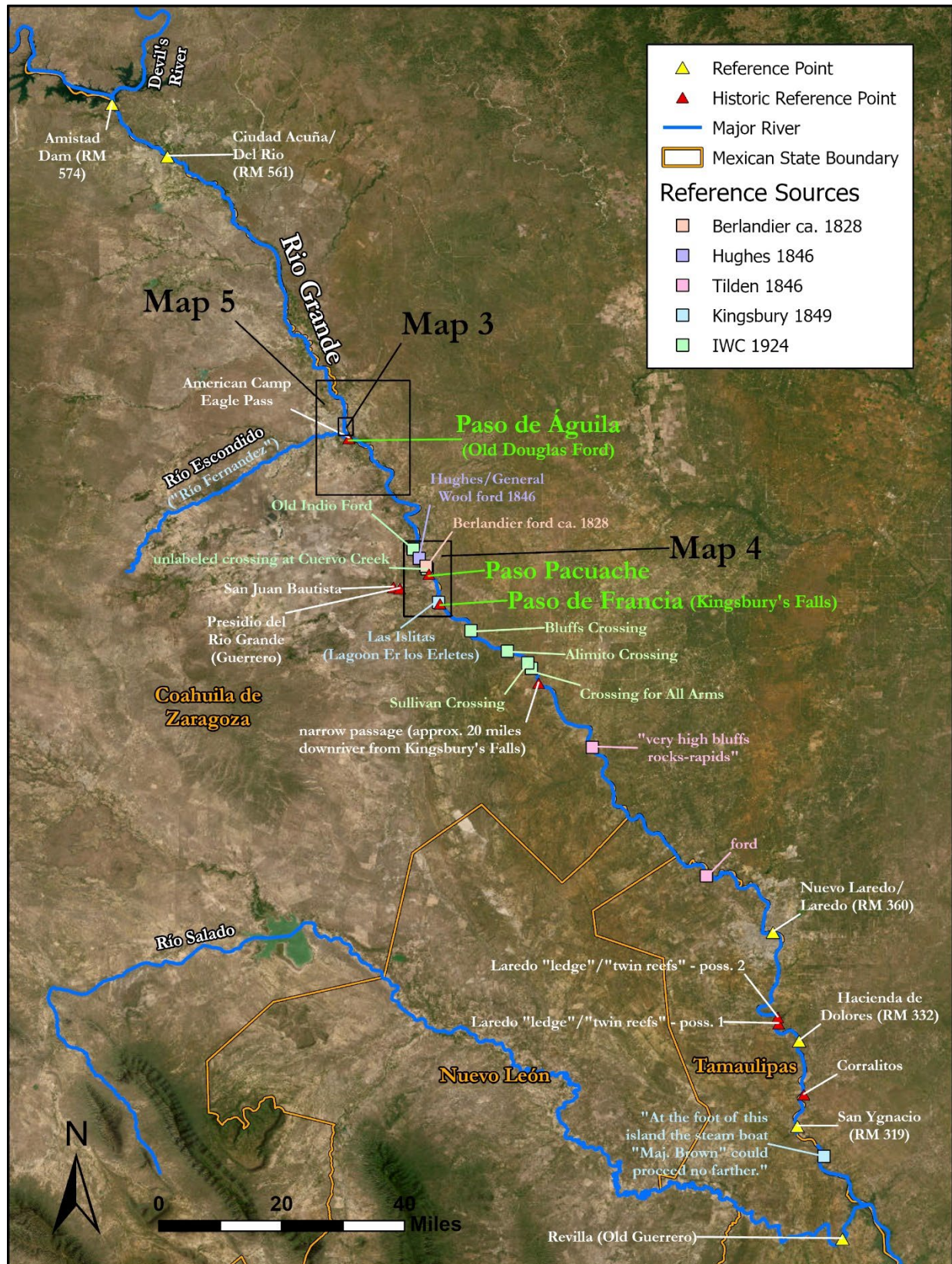
My resume is provided in Exhibit A.

Compensation

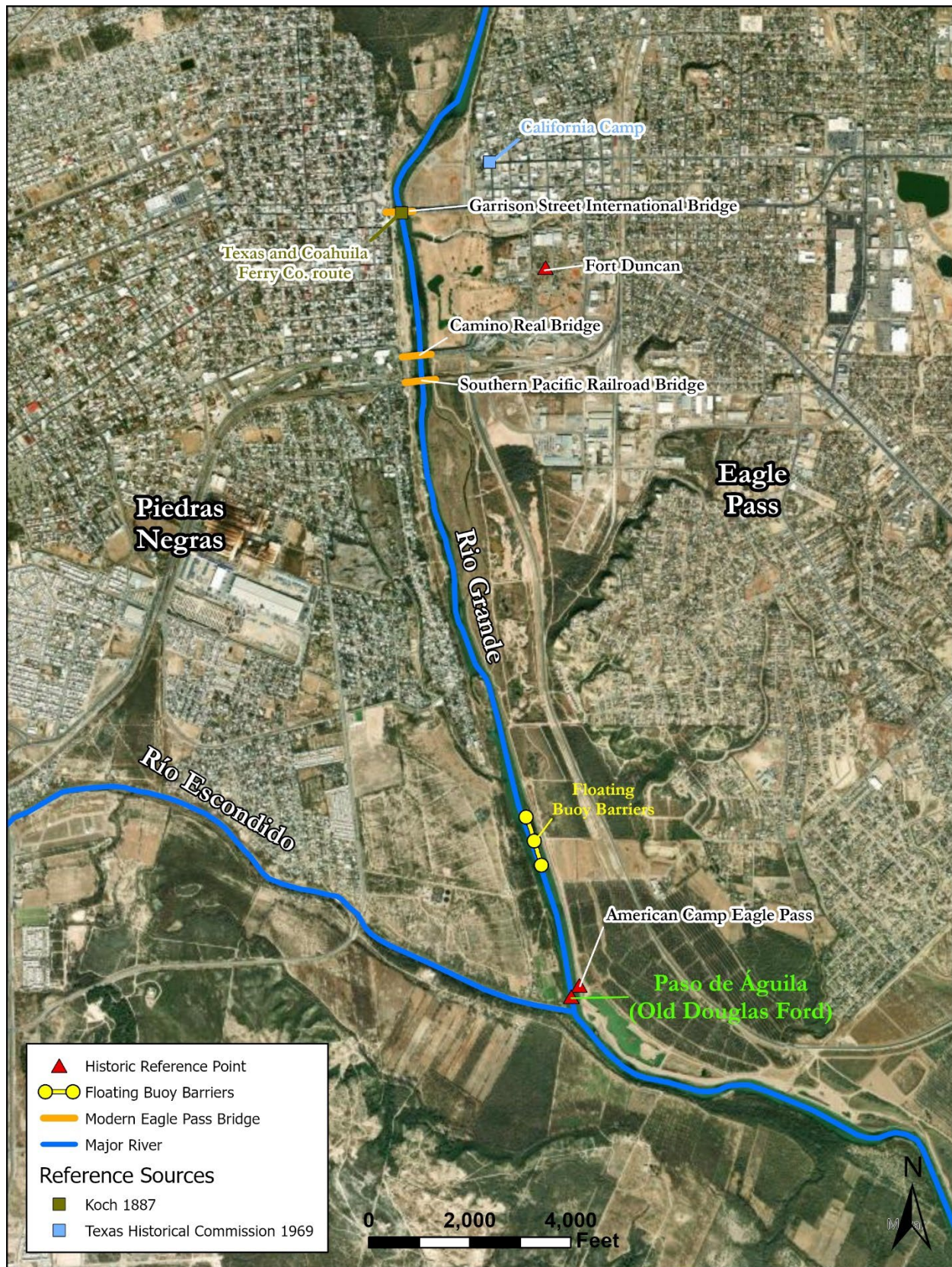
I am being compensated for my work in this matter at the rate of \$231 per hour, plus expenses. In addition to myself, other HRA historians and staff have worked on the project. Rate sheet is available on request.



Map 1



Map 2



Map 3

2 Methodology Used and Materials Considered

Historical Method, General

Historians (like scientists and other kinds of experts) use a specific method to gather evidence that we then use to explain what happened in the past and why. The historical method can be broken into three main phases: research, analysis, and writing/documentation. I have followed this approach in my research for this project.

The first step in any historical project is to figure out the historical question(s) being asked (who did what, where, when, why, and how) and then conduct research and gather evidentiary sources to answer those questions. Historians use their knowledge of the diverse types of repositories in which to find certain kinds of sources and online tools such as archival finding aids to find collections of documents or other evidence to create a logical research plan. We then conduct that research through a combination of online (databases, digitized newspapers, and other online document collections) and onsite (archives, historical societies, university or local libraries, and so on) research. Knowing where to find evidentiary sources (whether they can be gathered online or in a physical repository) is a historian's fundamental skill; we collaborate closely with archivists and reference librarians to sleuth out the most relevant and informative sources. While many sources are accessible via an ever-growing array of online databases, many of our best pieces of evidence come from archival collections that are not and may never be digitized.

Historians use a wide range of evidentiary sources that fall into two broad categories: primary and secondary. Primary sources are firsthand accounts, created close in time to the events they describe. Key types of primary sources are:

- written (published or unpublished, intended for either a public or private audience);
- visual (photographs, drawings, maps, designs);
- material (buildings, tools, machines, the physical landscape);
- quantitative (census data, climate data, production data); and
- interviews/oral histories of people with firsthand knowledge.

Secondary sources are analytical or scholarly works created after the fact using primary sources. Historians use secondary sources to help fill gaps in primary source data, as well as to provide broader context for the events we seek to understand.

Historians amass primary sources and then analyze them both in relation to one another and with respect to the larger historical context. Correlations among disparate sources give historians a higher degree of confidence that we have accurately figured out what happened. Through experience, we learn the strengths and weaknesses of diverse types of sources, allowing us to analyze them more effectively.

Documenting the results of our analysis most usually comes in the form of an annotated chronology or longer, narrative report such as this one that includes detailed footnotes to support our analysis along with maps, photographs, tables/graphs, or other useful qualitative or quantitative data taken from the evidentiary sources. In addition to gathering and analyzing evidentiary sources and creating useful narratives, historians keep detailed research logs and maintain a strict organizational method for the sources gathered to ensure that any piece of evidence we gather can be tied directly back to its source. We meticulously use best practices of proper documentation and footnoting, employ clear folder/file organization and consistent file-naming conventions, and ensure (both during our research and through fact-checking each source cited in a document) the validity of any evidence we use in our reporting.

Historical Method, History of Human Use of the Rio Grande

I used my academic training in U.S. history and professional experience in environmental history in directing and conducting research on the history of human use of the Rio Grande and in drafting my report on this matter. My HRA colleagues, Chris Baker (PhD), Emily Noonan (MA), and I first began by reviewing publicly available online sources about the history of New Spain and what would become south Texas and northern Mexico. We located materials by conducting keyword searches in archives.org, Google Books, HathiTrust, Internet Archive, Library of Congress, National Archives and Records Administration (NARA) online collections, Texas Digital Newspaper Program and Texas Almanac via Portal to Texas History, Texas State Historical Society online, Texas State Library and Archives Commission (TSLAC) digital holdings, Texas Tech University Digitized Maps of the Southwest Collection, University of Montana's OneSearch (which aggregates a wide variety of online databases including HeinOnline JStor, Gale, ProQuest, and others), and online materials available via the Briscoe Center of American History at the University of Texas, Austin. We conducted additional targeted searches in newspapers.com. We also conducted online research to find potential archival collections holding relevant materials, as well as Facebook, where

two pages dedicated to the history of Eagle Pass and Fort Duncan—Eagle Pass, Texas “Back in the Day” and Fort Duncan Museum Eagle Pass, Texas—provided invaluable images not found elsewhere (many attributed to Jeff Taylor Sr.).

In order both to fill data gaps and to ensure that we had gathered the widest possible range of sources that could speak to human use of the Rio Grande, we also conducted onsite research. Although we had hoped to review collections at the Maverick County Historical Society and Fort Duncan Museum, the historical society (although it has a Facebook page) is either not extant or is contained within the Fort Duncan Museum, which is only open two Saturdays a month (neither of which dates in May we could make work with the project schedule). I was unable to reach anyone affiliated with either repository to make inquiries about collections. HRA historians conducted research in federal records held at NARA facilities in Washington, DC (Keith Zahniser, PhD), College Park, Maryland (Derek Gaines, MA); and Fort Worth, Texas (Miller). We also reviewed physical collections at TSLAC (Baker) and the Briscoe Center in Austin (Miller and Baker).

The documents we reviewed and gathered on which I rely in the following report fall into several categories: published texts, journals, and newspaper accounts; federal records and publications; photos, drawings, woodcuts, and maps; and documents provided to us by the Texas State Office of the Attorney General gathered previously. I also reviewed Benjamin Johnson’s historical expert report to assess the documents that he used. As I read and analyzed the documents the HRA team gathered, I evaluated them to make sure that the information they contained was authentic and credible. I also used them to create a roadmap of additional documents to review. All documents I considered in forming my opinions are listed in Exhibit B and cited in my footnotes, as appropriate.

Part of the historical method is developing and evaluating hypotheses considering the research and analysis of other historians. In addition to Johnson’s reports, I reviewed the exhibits on which he based his opinions. I both reviewed the documents he produced (that I could access online, since most were not provided) and sought to find the original documents (to verify provenance) and/or alternative documents that either supported or contradicted his opinions.

An essential part of the historian’s work is organizing the pertinent information and assembling a report that sets forth a narrative recitation of the conclusions reached, containing appropriate citations to sources. Accurate and thorough source citation allows readers to easily find the sources upon which historical conclusions rely and then to evaluate for themselves whether the sources support those conclusions.

3 Definitions and Opinions Rendered

I have been retained by the Texas State Office of the Attorney General to provide opinions on past uses of watercraft on the Rio Grande, with a focus on the segment the U.S. Army Corps evaluated in a 1975 report between RM 275.5 and 610.¹ The segment starts at the crest of present-day Falcon Dam at RM 275.5 to a point six miles below the mouth of the Pecos River (RM 616). In this section, I define some important terms as relates to my historical analysis. My principal opinions are also summarized below and discussed in greater detail in the body of my report. I arrived at these opinions through the application of the American Historical Association's Standards of Professional Conduct, which establishes the best practices within my field and has allowed me to reach my conclusions with a reasonable degree of certainty.

3.1 Definition of Terms

In this report, unless in a direct quotation, I use the following terms in very specific ways that require clear definition at the outset. As follows:

- ***ferry, ferries, ferrying***

Use of watercraft to commercially convey of people or goods across a body of water in some as opposed to simply crossing the river.

- ***lower Rio Grande***

The Rio Grande segment from Laredo (RM 360) to the Gulf of Mexico (RM 0).

- ***navigable, navigability, navigation***

These terms can mean different things to different readers. In a general sense, *navigable* could mean any type of travel by vessels of any size or type for any purpose—from a personal inner tube to a commercial container ship. Legally, however, *navigable* and its iterations have a specific meaning. I am neither a lawyer nor offering a legal opinion in this report. I use variations of the term *navigable* in this report only in direct quotations from other people whose specific understanding of the term I do not presume to know. Instead of terms related to *navigable*, I use instead variations on *upstream and*

¹ U.S. Army Corps of Engineers (USACE), *1975 Navigability Study, Rio Grande, Tributaries, and Lakes, Rio Grande Basin, River Mile 275.5 to 610.0*, March 1975, appended to Joseph L. Shelnett, "Declaration," *U.S. v. Greg Abbott et al.*, Civil Action No. 1:23-cv-00853, filed August 16, 2023, in the United States District Court for the Western District of Texas, Austin Division, on file with State of Texas, Office of the Attorney General (TX-OAG).

downstream travel and *highway of commerce* to connote regular upstream/downstream riverine movement and always try to qualify the size and type of the vessel or watercraft, the person or persons operating the vessel or watercraft, and the purpose for which it was being operated. I also understand there is legal controversy as to whether (or in what circumstances) cross-river, bank-to-bank travel on a river can constitute *navigation* for purposes of the relevant statute. I make no legal judgments on that matter and simply report the facts as I read them in the historical record.

- ***vicinity of Eagle Pass–Piedras Negras***

The Rio Grande segment measured from the midpoint at the Garrison Street International Bridge three (3) river miles upriver (just beyond confluence with Elm Creek where a generally west-heading dogleg of the river returns to the river's generally north–south course) and three (3) miles downriver (confluence with Río Escondido). This segment stretches from approximately RM 493 to RM 499 and includes the current site of the Floating Buoy Barriers, which span from approximately RM 493.56 to RM 493.80.

3.2 Opinions Rendered

- Historical evidence does not indicate the existence of any substantial commerce or trade up or down the Rio Grande River in the vicinity of Eagle Pass–Piedras Negras (which includes the current site of the Floating Buoy Barriers) at any time prior to the end of the Mexican-American War in 1848. There also is no historical documentation to suggest that ferries crossed the Rio Grande River for commerce or trade in the vicinity of Eagle Pass–Piedras Negras, or the current site of the Floating Buoy Barriers, at any time prior to the end of the Mexican-American War in 1848.
- Historical evidence does not indicate that the Rio Grande was used substantially as a highway for commerce or trade upstream of the section defined herein as the lower Rio Grande, even during the period when steamboats and keelboats were in use for commerce and trade in the lower Rio Grande. There is also no historical documentation that even noncommercial water-based travel regularly occurred anywhere on the portion of the Rio Grande upstream from Laredo, including in the vicinity of Eagle Pass–Piedras Negras and specifically at the current site of the Floating Buoy Barriers, prior to the end of the Mexican-American War in 1848.

- In its natural condition, the Rio Grande above Laredo (the lower Rio Grande) experienced extended periods each year of very low water. Above the segment of river defined here as the lower Rio Grande, the river consisted of rocky stretches, island barriers, and falls and rapids year-round. These natural conditions made that portion of the Rio Grande upstream from Laredo unsuitable as a practical matter for use as an upstream/downstream highway of commerce.
- In the mid-1850s, some people made suggestions for improvements to the Rio Grande in both its lower reaches and above Laredo with a goal to enable commercial navigation. Historical evidence, however, makes clear that no improvements were ever made. Moreover, increasing irrigation along the Rio Grande after the end of the Mexican-American War in 1848 substantially lowered water levels in the river, making the possibility of improvements to make the Rio Grande upstream from Laredo a practical upstream/downstream highway of commerce ever more impractical after 1848. Although there was some cross-river ferry traffic across the narrow Rio Grande between Eagle Pass and Piedras Negras in the latter half of the 1800s and early 1900s, there is no historical documentation of cross-river ferry or other commercial traffic in the vicinity of Eagle Pass–Piedras Negras (or the current site of the Floating Buoy Barriers).
- Thus, the Rio Grande River above Laredo, including the larger river segment from RM 275.5 to 610.0 and the vicinity of Eagle Pass–Piedras Negras (including the current site of the Floating Buoy Barriers), historically has never been used or susceptible for use in its natural condition (or as changed) as an upstream/downstream highway of commerce. There is no historical documentation that any substantial goods or commodities were transported on the Rio Grande from the vicinity of Eagle Pass to any interstate city or other interstate location, or from any city location in another state to Eagle Pass or its vicinity. There is no historical documentation that substantial goods or commodities were transported on the Rio Grande to or from the vicinity of Eagle Pass–Piedras Negras to any foreign city or location, except for the ferry transportation previously referred to.

4 History of Water-Based Travel on the Rio Grande between RM 275.5 and 610, 1590-1922

Crossing the River: Indigenous and European Use of Fords and Watercraft, 1590-1848

Indigenous and non-Indigenous people in what are now the states of Texas (United States) and Coahuila, Nuevo León (a small sliver), and Tamaulipas (Mexico) historically forded and occasionally used shallow-draft watercraft to cross the Rio Grande between RM 275.5 and 610. Early documentation of the Rio Grande dating from the late sixteenth century through the periods of the Republic of Texas (1836–1845), Texas statehood (1845), the Mexican-American War (1846–1848), and the formalizing of the Rio Grande as the international border between Mexico and Texas at the close of the war in 1848 addressed crossing the river in this segment. Although boating began to expand on the river below Laredo as early as the 1750s, I could find no examples of either Indigenous or non-Indigenous people using the river above Laredo for upstream or downstream transportation or commerce before 1848.

Indigenous Use of the Rio Grande

Ethnographic accounts and documents written by missionaries in what is now northern Mexico and southern Texas provide glimpses into Indigenous use of the Rio Grande. Father Isidro Félix de Espinosa, living at Mission San Juan Bautista in the early 1700s, served as a chronicler of the area.² Espinosa authored several accounts of his experiences among the missions of northern Mexico, providing descriptions of the Indigenous people he met. In one, he explained how heavy showers could cause the Rio Grande to rise quickly, making it “impossible to ford the stream, or even to swim in it.” Indians living in the area “used rafts made of buffalo skins to cross the river” when “the rise was small.” Groups of four crossed, “each holding to the edge of the raft with one hand and swimming with the other.”³ Historian Ben Johnson provided other examples of Indigenous people using small watercraft, including accounts of Lipan people having a “canoe” at a

² Donald E. Chipman, “Espinosa, Isidro Felix de,” *Handbook of Texas*, 1952, updated January 1, 1995, <https://www.tshaonline.org/handbook/entries/espinosa-isidro-felix-de>.

³ Cited in Robert S. Weddle, *San Juan Bautista: Gateway to Spanish Texas* (Austin: University of Texas Press, 1968), 59.

river crossing near present-day Del Rio; using a “wood boat” built from logs, crosspieces, and animal hides; and a “rawhide boat” into which Lipan would “put their things in the middle, pull the rope, and it comes into shape” (possibly akin to today’s “dry bag,” which kayakers and other boaters use to collect items and protect them from getting wet).⁴ None of the examples I found or that Johnson provides, however, confirm that the Lipan used these watercraft to do more than cross the river. Nor do historical sources clarify the exact location on the river where Indigenous people forded the river or potentially used watercraft during high water aside from a mid-1850s’ reference to a ford eighty-five miles above the mouth of the Pecos River as “Lipan Crossing” and a 1924 map labeling an “Old Indio Ford” about eight miles upriver from the head of the falls of the Rio Grande (about thirty miles downriver from present-day Eagle Pass–Piedras Negras).⁵

Between the mid-eighteenth century and the early nineteenth century, “a strip of territory about two hundred leagues [600 miles] wide, through which the [Rio Grande] river ran, was the favorite hunting ground of the Apache and Lipan, forming ‘a pouch (*bolsa*) of land between New Mexico, Texas, and Coahuila’ and extending nearly to the mouth of the Rio Grande.”⁶ Since Indigenous hunting practices have almost universally been focused on places where animals either forage or come to rivers and streams to drink, it makes sense that they may have crisscrossed rivers and streams out of necessity. The above accounts of Indigenous people using small, often ad hoc forms of watercraft to cross the Rio Grande when fording was blocked by high water supports this assertion. A 1795 report by provincial inspector Félix Calleja described how during their forays into the region, Indians from the “north” entered and returned to Nuevo Santander “on foot, equipped with arms, bridles, and halters” (presumably to steal horses, mules, or other livestock) via several

⁴ All cited in Benjamin H. Johnson, “Expert Report Regarding the Historical Navigability of the Lower Rio Grande, Particularly in the Eagle Pass–Piedras Negras Area,” U.S. District Court, Western District of Texas, No. 1:23-CV-853-DAE, *U.S.A. v. Greg Abbott, Governor of the State of Texas, and the State of Texas*, 5 and notes 5n5–7. Unfortunately, I was unable to locate and verify key sources he used for this section, most notably Thomas Hester, “Aboriginal Watercraft on the Lower Rio Grande of Texas,” *The Masterkey* 46 (1972): 110; and Morris E. Opler, “Lipan Apache Navigation,” *The Masterkey* 49, no. 2 (1975): 70. I was able to find other items about the Apache (and other Tribes) in Texas—none of those mentioned watercraft. See, for example, Morris E. Opler, “The Lipan and Mescalero Apache in Texas,” typescript, October 26, 1970; William Bollaert, “Observations on the Indian Tribes in Texas,” read before the Society, April 10, 1850, unattributed article, both in Box 4C336, Richard Yarborough Collection, Briscoe Center for American History, University of Texas, Austin (hereafter UTA); Anna Muckleroy, “The Indian Policy of the Republic of Texas, I,” *Southwestern Historical Quarterly* 25, no. 4 (April 1922): 229–60; and Frank D. Reeve, “The Apache Indians in Texas,” *Southwestern Historical Quarterly* 50, no. 2 (October 1946): 189–219.

⁵ William H. Emory, *Report on the United States and Mexican Boundary Survey, Made under the Direction of the Secretary of the Interior*, Vol. 1 (Washington, DC: Cornelius Wendell, Printer, 1857), 75; and Report of the American Section of the International Water Commission United States and Mexico, House Document 359, 71st Cong., 2d Sess., April 21, 1930 (Washington, DC: GPO, 1930), map 3 (1924).

⁶ I. J. Cox, “The Southwest Boundary of Texas,” *Quarterly of the Texas State Historical Association* 6 (October 1903): 89, quoted in Frank D. Reeve, “The Apache Indians in Texas,” *Southwestern Historical Quarterly* 50, no. 2 (October 1946): 189–219, quotation at 198n34; see also 200.

land routes between as far upriver as Presidio del Río Grande and downriver as Reynosa, around 30 to 340 miles downstream of today's Eagle Pass–Piedras Negras, respectively.⁷ According to Calleja, the Indians were more likely to return via the route and river crossing upstream from Laredo to avoid the more populated areas downstream, likely trying to avoid detection and capture with the animals and goods with which they were returning.⁸ Whichever route they took, they would have had to ford or otherwise cross the Río Grande.

None of the sources I reviewed personally or have seen in the work of others either explicitly states or implicitly suggests that the various bands of Apache living in what is now northern Mexico and Texas traveled regularly upstream or downstream on the Río Grande using what small, makeshift vessels they possessed. This lack of descriptions of Indians traveling by any other means than foot or horse belies any idea that they used watercraft to do more than cross the river when they were unable to ford it.

4.1.1 Spanish, Mexican, and Early American Use of the Río Grande before 1848

Non-Indigenous people either did not travel much or did not often record such movement in the area between RM 275.5 and 610 area before the seventeenth century. As historian Herbert Bolton has explained, very few Spaniards had “broken over the Río Grande below the Pecos [River, RM 616]” before 1670.⁹ I was able to find one instance of Spanish/Mexican crossings of the river prior to that date. In summer 1590, lieutenant governor of Nuevo León, Don Gaspar Castaño de Sosa, crossed with a contingent of soldiers in search of mines. The expedition headed east and crossed the Río Grande at a site historian Carlos Castañeda believed was near present-day Eagle Pass.¹⁰ More than sixty years later, after decades of skirmishes with Indigenous peoples in the area, Fernández de Azcué set out on an expedition specifically “to chastise” the Cactles.¹¹ Azcué,

⁷ The name Presidio del Río Grande was often used interchangeably with the falls of the Río Grande, a notable landmark sitting between the river fords of the two primary routes to Presidio del Río Grande that crossed above (Paso Pacuache) and below (Paso de Francia) the falls.

⁸ David M. Vigness, trans. and ed., “Nuevo Santander in 1795: A Provincial Inspection by Félix Calleja,” *Southwestern Historical Quarterly* 75, no. 4 (April 1972): 461–506, esp. 495–96, quotation on 495.

⁹ Herbert E. Bolton, *Spanish Exploration in the Southwest, 1542–1706* (New York: Scribner's, 1916), 284. For the purposes of this report, I use the terms *Spanish* to refer to non-Indigenous people living in New Spain/Spain prior to 1821 and thereafter, *Mexican* to refer to non-Indigenous people in what had become Mexico.

¹⁰ Carlos E. Castañeda, “Earliest Catholic Activities in Texas,” *Catholic Historical Review* 17, no. 3 (October 1931): 278–95, esp. 283, 283n5. See also Paul Horgan, *Great River: The Río Grande in North American History*, 2 Vols. (Middletown, CT: Wesleyan University Press, 1984), 1:157. Whether Arroyo Castaño, which enters the Río Grande at the head of the falls of the Río Grande (at the base of the falls was the ford that would later be called Paso de Francia), was named after the lieutenant governor or is simply a coincidence is unknown. The place name is intriguing, however.

¹¹ Castañeda, “Earliest Catholic Activities,” 286. See also Weddle, *San Juan Bautista*, 5.

accompanied by over one hundred soldiers and more than three hundred Indigenous “allies,” left Monterrey and crossed the Rio Grande in 1655. In an area described as “twenty-four leagues” beyond the river, the group found and engaged the enemy in a battle, reportedly killing one hundred Indians and taking seventy prisoners.¹²

In March 1674, Spanish Franciscan Brother Manuel de la Cruz left what historians believe was likely Santa Rosa (present-day Ciudad Múzquiz, Coahuila) on a missionizing journey to find the “Guyquechale Indians,” who were reportedly beyond the Rio Grande in present-day Texas. Brother De la Cruz and five Indigenous people worked their way north, reaching the river after four days. As historian Francis Steck later described, the group crossed “where the river formed two forks . . . probably some miles below the present city of Del Rio” and spent three weeks in what are today Maverick, Kinney, and Val Verde Counties in Texas.¹³ On their return trip, they recrossed the river at a location with a similar description, where the river forked in two, “in the middle of which was an island of sand.” Whether they used the same ford in both directions is unknown.¹⁴

In late April 1675, Franciscan priests Juan Larios and Dionísio de San Buenaventura set out on an expedition (likely from the same area from which Castaño had departed eighty-five years earlier) to find Indians and attempt to convert them to Christianity and settle them in pueblos. Accompanying Larios were Fernando del Bosque, ten soldiers, Lásaro Agustín (the Indian governor of the newly founded San Miguel de Luna), twenty-one Indians, and two Catholic missionaries. After about two weeks, heading northeast, the party “arrived at a very copious and very wide river, with a current more than four hundred *varas* [approximately 1,100 feet] across,” which the Indians said was the Rio Grande.¹⁵ Using the distances Bosque recorded in his diary, historians determined that the party likely reached the river, which Bosque named the River of San Buena Ventura, at or above present-day Eagle Pass.¹⁶

¹² Bolton, *Spanish Exploration*, 284. See also Herbert E. Bolton, “The Spanish Occupation of Texas, 1519–1690,” *Southwestern Historical Quarterly* 16, no. 1 (July 1912): 1–26, esp. 14–15.

¹³ Francis Borgia Steck, “Forerunners of Captain De Leon’s Expedition to Texas, 1670–1675,” *Southwestern Historical Quarterly* 36, no. 1 (July 1932): 1–28, quotations on 9 and 10. Steck relied on a letter dated May 29, 1674, from De la Cruz to the Commissary General in Saltillo (10n2).

¹⁴ Steck, “Forerunners,” 13.

¹⁵ Bolton, *Spanish Exploration*, 296. The *vara* equals about 33 inches, making the river they encountered at least 1,100 feet wide. According to measurements on Google Earth, the Rio Grande at the international Garrison Street Bridge between Eagle Pass and Piedras Negras measures approximately 305 feet across. See Marcos A. Reyes-Martinez, “The Vara: A Standard of Length with a Not-So-Standard History,” *Taking Measure Blog*, National Institute of Standards and Technology, October 11, 2019, <https://www.nist.gov/blogs/taking-measure/vara-standard-length-not-so-standard-history>.

¹⁶ Bolton, *Spanish Exploration*, 287, 296.

Unable to cross at this location, the group searched for and eventually found a ford downriver. A translated version of Bosque's diary described the location of their crossing in detail, recording how the Indians took the party across the river "at a place where the river forms three branches," creating islands.¹⁷ According to Bosque, "It was necessary to make a raft of poles to cross the middle one, having forded the first, which is more than two hundred varas [550 feet] wide and a vara and a half [just over 4 feet] deep, with the water above the stirrup and near the hind bow of the saddle, with a current the whole width, and with willow and osier brush on a little island which is in the middle. . . . It runs, apparently, from west to east."¹⁸ Bosque did not record the location at which the party recrossed the Rio Grande. However, on June 5, Bosque's group arrived at a stream that was possibly the Río Escondido, which enters the Rio Grande about 2.5 miles below Piedras Negras. Given that they were back on the "Mexican" side of the river, they must have recrossed at some point prior, possibly near their earlier crossing.¹⁹

In addition to the 1674 and 1675 expeditions, Coahuila governor General Alonso de León crossed the Rio Grande into present-day Texas in 1688 and 1689. During the first expedition, De León was searching for an Indian village rumored to have a White chief (thought possibly to be associated with a French colony started by René Robert Cavelier, Sieur de La Salle). After encountering a Frenchman named Jean Géry there, the party regrouped and set out the following year in another attempt to find LaSalle's colony. Accompanying De León was an officer named Diego Ramón. According to historian Robert Weddle, both expeditions likely crossed the Rio Grande at Paso de Francia (Maps 2, 4, and 6). Weddle noted that the second expedition passed by the soon-to-be location of Mission San Juan Bautista and the Presidio of the Rio Grande.²⁰ In addition to the two De León expeditions, historians believe that an expedition led by General Domingo Terán de los Ríos, the first "Governor of Texas" (the Mexican province not the U.S. state) along with Fray Damián Massanet and Fray Francisco Hidalgo crossed the Rio Grande at Paso de Francia in 1691 (Maps 2, 4, and 6).²¹ After losing forty-nine saddle horses to a stampede and three head of stock to drowning, Terán's group described this spot on the river as "exceedingly rapid where it is narrowest" and about as wide as "a gunshot."²²

¹⁷ Bolton, *Spanish Exploration*, 296n1.

¹⁸ Bolton, *Spanish Exploration*, 296.

¹⁹ Bolton, *Spanish Exploration*, 306n1.

²⁰ Weddle, *San Juan Bautista*, 13–14.

²¹ Weddle, *San Juan Bautista*, 15–16. See also Ben E. Pingenot, "San Antonio Crossing," *Handbook of Texas*, 1976, updated November 1, 1995, <https://www.tshaonline.org/handbook/entries/san-antonio-crossing>.

²² Quoted in Weddle, *San Juan Bautista*, 15.

The exact location(s) of the fords used by the parties led by De la Cruz, Bosque, De León, and Terán remains unknown. Castañeda and Bolton used their geographical understandings of the two routes they studied to place them somewhere in the vicinity of the falls of the Rio Grande. Additionally, both De la Cruz and Bosque provided similar descriptions of crossing the river at a location where the current was split into two or three branches and where they crossed through water and over an island. If these correlations are accurate, then the groups' fording location was likely at what would become known as either Paso Pacuache or Paso de Francia, roughly 30.5 (RM 464.5) and 35 (RM 460) miles downriver from Eagle Pass (RM 496), respectively (Maps 2, 4, and 6).²³ The exact origins of these names have not been verified, but historians believe that the term *Pacuache* referred to local Coahuiltecan tribes and that *Paso de Francia* (Pass of France or "France Way," as Weddle translated it) took its name either in reference to De León's expedition in search of Cavelier's Sieur de La Salle or the "unexpected arrival of Louis Juchereau de St. Denis along with three other Frenchmen and four Indians in 1714 at San Juan Bautista."²⁴

Historical records document people traveling on the Camino Real between San Antonio and San Juan Bautista/Presidio del Río Grande and beyond in the eighteenth and nineteenth centuries using both the Paso Pacuache and Paso de Francia. After the founding of San Juan Bautista Mission and associated Presidio del Río Grande in 1700 (encompassed within present-day Guerrero, Coahuila), Paso de Francia, located about six miles southeast of the mission/presidio below the mouth of Arroyo Castaño, "became the principal point of entry for Spanish entradas of exploration and colonization into Texas."²⁵ Paso de Francia is associated with the section of the river variously called the falls of the Rio Grande, Las Isletas/Isalitas, and Kingsbury's Falls. The crossing here has also been called Lower Pass/Ford, Old San Antonio Road, and Old Presidio Road. Paso Pacuache is located below the mouth of Cuervo Creek (on the Texas side), six miles northeast of the presidio, and approximately six river miles upstream of Paso de Francia. Referred to in various sources as the Upper Pass/Ford, Paso de Nogal (Walnut Pass), Paso de Diego Ramón, and Tlacuache ("Possum

²³ In his *Coahuila y Texas* (1934), Vito Alessio Robles corroborated these earlier physical descriptions, explaining that Las Isletas was so named because of the islands formed "where the water course widens out upon a firm bed of limestone and is divided into three wide arms" (cited in Weddle, *San Juan Bautista*, 5n5). River mileages based on measurements taken on GoogleEarth as well as Table of River Mileages, Appendix 3 from 1976 report received from State of Texas, Office of the Attorney General.

²⁴ Pingenot, "San Antonio Crossing"; and Weddle, *San Juan Bautista*, 14.

²⁵ Pingenot, "San Antonio Crossing." Mileage between the fords and presidio are "as the crow flies" and estimated using Google Earth.

Crossing), Paso Pacuache like Paso de Francia has been associated with the Old San Antonio Road (Maps 2, 4, and 6).²⁶

Perhaps the earliest written description of crossing the Rio Grande on a boat came from Don José Tienda de Cuervo, who inspected the newly formed province of Nuevo Santander (later Tamaulipas) in 1757. Tienda de Cuervo described the vessel that crossed the river at Hacienda de Dolores (founded in 1750 on what is now the Texas side of the Rio Grande below Laredo) as “consisting of *canoas*”; another writer called it a sailboat.²⁷ The presence of this watercraft crossing the lower Rio Grande foretold the future use of the river below Laredo. Historical records showed that watercraft were used on the Rio Grande at or near Guerrero in the late 1820s.²⁸

People continued to cross the Rio Grande throughout the late eighteenth and early nineteenth centuries. In 1777 and 1778, Franciscan friar Juan Agustín Morfi accompanied Teodoro de Croix on an inspection tour of the *Provincias Internas* (interior provinces). The expedition crossed the Rio Grande near San Juan Bautista on December 24, 1778, at what Morfi recorded in his diary as “French Ford.”²⁹ In 1807, Lieutenant Zebulon Pike became the first U.S. citizen to document crossing the Rio Grande into Texas at Paso de Francia (Maps 2, 4, and 6).³⁰ In 1828, en route to Presidio de Rio Grande from San Antonio, naturalist Jean Louis Berlandier described crossing a ford “generally frequented by travellers going to Texas” situated at 28°21’37” north latitude, northeast of

²⁶ Weddle, *San Juan Bautista*, 5n5; and Pingenot, “San Antonio Crossing.” Given that Diego Ramón’s name has been associated with Pacuache Pass, one of the De León expeditions may have used the upper ford rather than the lower, and De León could have named it after his officer. Alternatively, the ford may have taken its name after Ramón became interim governor of Coahuila following De León’s entradas (Weddle, *San Juan Bautista*, 15). Also interesting was the fact that Terán reportedly spent his first night in what became Texas at “Charco de Cuervo (or Real de Cuervo),” named for the “thousands of crows” that roosted nearby (quoted in Weddle, *San Juan Bautista*, 15). Given that Paso Pacuache crosses the Rio Grande just below Cuervo Creek, Terán’s crossing also could have been at Paso Pacuache instead of Paso de Francia.

²⁷ Tienda de Cuervo quoted in Pat Kelley, *River of Lost Dreams: Navigation on the Rio Grande* (Lincoln: University of Nebraska Press, 1986), 6. For information on the founding of the Hacienda de Dolores, see Clotilde P. García, “Escandón, José de,” *Handbook of Texas*, 1952, updated October 1, 1995, <https://www.tshaonline.org/handbook/entries/escandon-jose-de>

²⁸ Jean Louis Berlandier, *Journey to Mexico during the Years 1826 to 1834*, 2 Vols., trans. Sheila M. Ohlendorf et al. (Austin: Texas State Historical Association, 1980), 2:572–73.

²⁹ [Juan Agustín Morfi], “Diary of Morfi, 1778,” in V. N. Zivley, *Field Notes and Detail Map of the Kings Highway from Pendleton’s Ferry on Sabine River, to Paso de Francia on the Rio Grande, 1915–1916*, Texas State Library and Archives, <https://www.tsl.texas.gov/apps/arc/maps/maplookup/01891>. See also “Morfi, Juan Agustín,” *Handbook of Texas*, 1952, updated April 1, 1995, <https://www.tshaonline.org/handbook/entries/morfi-juan-agustin>; and Robert S. Weddle, “Croix, Teodoro de,” *Handbook of Texas*, 1952, updated June 1, 1995, <https://www.tshaonline.org/handbook/entries/croix-teodoro-de>. Nearly 140 years later, working “Under Appointment and Direction of His Excellency Gov. Jas. E. Ferguson,” Zivley surveyed, relocated sections of, and placed markers along the King’s Highway (Camino Real) and Paso de Francia using Morfi’s diary. Perhaps echoing Terán’s language, Morfi described the ford as a “pistol-shot’s distance away” from the opposite bank ([Morfi], “Diary of Morfi, 1778,” 1). Zivley’s further description of Paso de Francia as a “natural Ford, 1200 ft wide,” is like those of the people who described it before him (Zivley, *Field Notes*, 114).

³⁰ Pingenot, “San Antonio Crossing.”

Guerrero and southeast of La Escondida, Mexico, and apparently at the downstream end of a narrow island in the river at that location. After unsuccessfully asking “some boatmen . . . who wished to make an extortionate profit” to take them across, they set out on their own. “Because the river was extremely wide, so that in some places it carried about four feet of water, and because the current was extremely swift, everything was crossed on the back of a mule led by a horseman.”³¹ Georeferencing these coordinates indicated that this ford location was likely about a mile upstream from Paso Pacuache (Maps 2 and 4).

In March 1833, fifty-nine colonists were en route to a new settlement called Dolores on Las Moras Creek, twelve miles upstream from its confluence with the Rio Grande. Along the route, which took them through Presidio del Río Grande, they crossed the Rio Grande into present-day Mexico at a spot Beales described in his diary as “about three hundred yards wide” and approximately three feet deep across the entirety of the river. After months of rain, it seems likely that this was “high water” at Paso de Francia (Maps 2, 4, and 6).³² After leaving Presidio del Río Grande, they traveled north for a few days before trying to recross the Rio Grande. After deciding it would take too much work to cross at a place called the “Paso de la Navaja,” they found another ford across the river about ten miles upstream. At this location they crossed “for about a quarter of a mile, obliquely across the river, in order to take advantage of the shallow places; but still the water was in some parts three feet and a half deep.” However, Beales reported, the group “had the pleasure of once more encamping on ‘our’ side of the river.”³³ The exact location of the second and third fords is unknown, but the second one may have been near present-day Eagle Pass and the third one was likely between Eagle Pass and Del Rio near the mouth of Las Moras.

The presence of Pike and explorers like Berlandier foreshadowed heavy use of both fords by the military in the 1830s and 1840s during the period of political upheaval that occurred during those years. In February 1836, during the Texas Revolution, a contingent of Mexican General Antonio López de Santa Anna’s troops left Presidio del Río Grande en route to San Antonio de Bexar (present-day San Antonio) to subdue the insurrection there. The expedition of possibly as many as 8,000 cavalry, infantry, mules, arms, and an unknown number of cannon, crossed the Rio

³¹ Berlandier, *Journey to Mexico*, 2:573.

³² Beales excerpted and quoted in William Kennedy, *Texas: The Rise, Progress, and Prospects of the Republic of Texas*, 2nd ed., 2 Vols (London: R. Hastings, 1841), 2:48. Pingenot located this crossing at the Río Escondido but provided no source to verify his assertion (Ben E. Pingenot, ed., *Paso del Aguila: A Chronicle of Frontier Days on the Texas Border as Recorded in the Memoirs of Jesse Sumpter* [Austin: Encino, 1969], 39n2).

³³ Egerton, quoted in Kennedy, *Texas*, 12:51.

Grande at a wide point of the river in “water up to their waists” that one historian described as four or five miles from the Presidio and another described as specifically being Paso de Francia.³⁴ Given the equal distance between Paso de Francia, Paso Pacuache, and the Presidio del Río Grande (in fact, they are arranged in an almost equilateral triangle [Map 2]), Santa Anna and his army could have crossed at either of the fords.

Six years later, in fall 1842, Mexican General Adrián Wöll (alt. Woll or Woell) crossed the Rio Grande with a large contingent of cavalry and artillery on his way to capture San Antonio. Wöll attacked the district court there, which was in session, captured fifty-five Americans and one Mexican, and marched them to Perote Prison in the state of Vera Cruz.³⁵ Two of the captives would later play key roles in the development of the Eagle Pass area in Texas: Samuel Augustus Maverick (for whom Maverick County was named) and John Twohig (who originally purchased the land on which Fort Duncan and Eagle Pass were sited).³⁶ According to an article historian Ben E. Pingenot authored in 1976, Wöll crossed the Rio Grande at Paso Pacuache in 1842 (possibly known at that time as Paso de Nogal [Maps 2 and 4]).³⁷ The exact location is unclear, however; in 1969, Pingenot had described how trade between San Antonio and Presidio del Río Grande on the Camino Real sharply decreased after 1836 and was replaced by “a smuggler’s trail following a more direct though northerly course” between San Fernando and San Antonio.³⁸ The crossing just above Rio Escondido, which joins with the river from the Mexican side approximately 2.5 miles south of current Eagle Pass, is sometimes called Douglas Ford or Paso del Águila (although other descriptions have located Paso del Águila on the Rio Escondido itself upstream from its mouth on the Rio Grande).

In 1846, in the midst of the Mexican-American War, the United States launched a three-pronged maneuver with General Zachary Taylor leading troops into Tamaulipas and Nuevo Leon,

³⁴ For the estimated size of the army, see Eugene C. Barker and James W. Pohl, “Texas Revolution,” *Handbook of Texas*, 1952, rev. Mary L. Scheer, March 7, 2024, <https://www.tshaonline.org/handbook/entries/texas-revolution>. The number of cannon Santa Anna had with him when he crossed the river is unclear, but at least one report that he began bombardment of San Antonio by cannon on February 23, 1846, suggested their presence (see Bruce Selcraig, “Remembering the Alamo,” *Smithsonian Magazine*, online, April 1, 2004, <https://www.smithsonianmag.com/history/remembering-the-alamo-101880149/>). For the “water up to their waists” quotation, see A. Ray Kinsall, *Fort Duncan: Frontier Outpost on the Rio Grande: A Sesquicentennial Celebration Edition Compendium* (n.p.: self-published, March 27, 1999), n.p.; and Pingenot, “San Antonio Crossing,” respectively.

³⁵ J. J. McGrath and Wallace Hawkins, “Perote Fort—Where Texans Were Imprisoned,” *Southwestern Historical Quarterly* 48, no. 3 (January 1945): 340–45, esp. 341–42; and Kinsall, *Fort Duncan*, noted that Wöll’s was “a large force consisting of cavalry and artillery to the number of thirteen hundred.”

³⁶ Kinsall, *Fort Duncan*.

³⁷ Pingenot, “San Antonio Crossing.”

³⁸ Pingenot, *Paso del Águila*, 39n2.

General Stephen Kearny penetrating New Mexico and California, and Brigadier General John E. Wool marched his own division approximately eight hundred miles from San Antonio, Texas, to Saltillo, the capital of Coahuila.³⁹ The division included a team of four topographical engineers led by Captain George Hughes, who kept detailed observations of the journey. On October 8, 1846, the reconnaissance party camped “on the west bank [*sic*] of the Rio Grande” after traveling “164 miles from San Antonio. Two days later, October 10, 1846, they set out to find a good camping spot beyond the Presidio del Río Grande.⁴⁰ Hughes described the ford at which they crossed the Rio Grande as “eight hundred and sixteen feet wide, water nearly uniformly three and a half feet deep, bottom hard gravel, and current rapid.” Presidio del Río Grande was located “about 5 miles from the river, the general course of the road [to the Presidio] being south 52° west.”⁴¹ The coordinates Hughes gave for this first crossing pinpointed it about three miles upstream from Paso Pacuache (Maps 2 and 4). The next day, two lieutenants went “to examine Woll’s [*sic*] ford, or rather ferry” about a mile and a half above their camp. They found the river there “some six hundred feet wide, very rapid, and not fordable.”⁴² Hughes’s description of Wöll’s ford does not correlate easily with either of the two locations at which others have placed it (Map 2), but he may have both mistakenly said “above their camp” (which he also mistakenly placed on the west bank of the river) and underestimated the distance from their first camping/fording spot. If he was really referring to a spot a mile and a half below their camp, it could correlate to Paso Pacuache, which was about three miles below. Alternatively, if his description was accurate, the spot they were not able to ford correlates closely to “Old Indio Ford,” which the International Water Commission marked on a 1924 map (Map 4).

Unable to locate a good crossing place upriver, they instead found a spot about three miles below their camp that likely corresponded to Paso de Francia based on its description of the Rio Grande being “broken into several cascades over which boats can safely pass only in floods” (Maps

³⁹ George W. Hughes, *Memoir Descriptive of the March of a Division of the United States Army, under the Command of Brigadier General John E. Wool, from San Antonio de Bexar, in Texas, to Saltillo, in Mexico*, S. Ex. Doc. 32, [August 29,] 1846, 31st Cong., 1st Sess., <https://shareok.org/bitstream/handle/11244/35459/Senate-31-1-Executive-32-Serial-558.pdf?sequence=1&isAllowed=y>.

⁴⁰ Hughes, *Memoir*, 17. Hughes’s description of arriving on the “west bank” of the Rio Grande as they traveled from San Antonio in a southwesterly direction is likely an error. Although due to meanders it is possible to be on the west bank of the Rio Grande on the Texas side, the stretch of river Hughes was describing near the Presidio is straighter than in most places, with none of the oxbows found in other segments. Furthermore, a table of coordinates in the report showed they camped on the “left bank Rio Grande, Texas,” at “28°, 22’, 43.4” north—the left bank of the Rio Grande at this location is the east bank (Hughes, *Memoir*, 66).

⁴¹ Hughes, *Memoir*, 17.

⁴² Hughes, *Memoir*, 17.

2, 4, and 6). On October 11, army engineer Captain Frazier erected “a flying-bridge” out of pontoons that the engineers had constructed in San Antonio and transported to the river. To protect the bridge, the engineers constructed “defensive works on both banks.” Leaving behind two companies of volunteers to guard the structure, “the whole army, wagons, &c, crossed the river” the next day, and Paso de Francia also became known as Wool’s Crossing.⁴³

According to Pingnot, Paso Pacuache became the “principal ford for traffic” entering and leaving Presidio del Río Grande. Both the U.S. and Mexican governments erected small customhouses and assigned guards to oversee and regulate trade crossing the river there.⁴⁴ Today, a Boundary Commission weir and gaging station marks the spot.

4.2 Moving Upstream and Downstream below Laredo on the Rio Grande, 1749-1917

Between 1749 and 1755, José de Escandón had founded twenty-four villages and missions helping solidify Spanish control over the region that is now known as Tamaulipas.⁴⁵ Several communities known as the *villas del norte* grew along the Mexican provinces bordering the lower Rio Grande. Before the river became the international boundary in 1848, these communities were part of the province of Nuevo Santander. After 1848, the communities were separated by an international boundary, the Rio Grande. Escandón’s villas included Matamoros, Reynosa, Camargo, Dolores, Mier, Revilla (present-day Guerrero), and Nuevo Laredo in the Mexican state of Tamaulipas and Brownsville, Hidalgo, Rio Grande City, Roma, San Ygnacio, Hacienda de Dolores, and Laredo in what is now Texas. Between 1749 and 1824 or 1825, when the first steamboat arrived on the lower Rio Grande, residents would have exclusively used flatboats (likely maneuvered with a pole and oars or a small sail) or rafts or canoes of some kind to travel among these settlements on the water. By the end of the 1830s, steam-powered boats, barges, and keelboats played a significant role in commerce and travel below Laredo. By the 1870s, steamboat use on the lower Rio Grande was in steep decline. Although a brief resurgence occurred at the outset of the Porfiriato in Mexico,

⁴³ Hughes, *Memoir*, 18. See also Bryant P. Tilden (*Notes on the Upper Rio Grande: Explored in the Months of October and November 1846, On Board the U.S. Steamer Major Brown* [Philadelphia: Lindsay and Blakiston, 1847], 25), whose party was ascending the Rio Grande at the same time Wool was crossing the Rio Grande on his trek from San Antonio to Saltillo. Although Tilden himself did not travel beyond Laredo, four of the *Major Brown*’s party likely saw evidence of Wool’s passage on their way to Presidio and then back down the Rio Grande by water. Information from them likely informed Tilden’s description that Presidio was “about six miles from General Wool’s crossing” (but this estimate holds true for any number of fording spots on the Rio Grande in that area).

⁴⁴ Pingnot, “San Antonio Crossing.”

⁴⁵ Vigness, “Nuevo Santander in 1795,” 462. See also García, “Escandón.”

steamboats had disappeared from the lower Rio Grande by the first century of the twentieth century.

In addition to the canoe Tienda de Cuervo documented in 1757 at Hacienda de Dolores, he also reported based on second-hand information that “small boats may navigate in the mouth of the Rio Grande del Norte.”⁴⁶ Without historical documents to further explain this, one can surmise that most or all these small boats at the mouth of the river had arrived via the Gulf of Mexico rather than upriver. According to Tienda de Cuervo, a lack of timber to build boats had resulted in mule trains being the preferred method of transporting salt from Reynosa to other river communities along the lower Rio Grande.⁴⁷ Still, at least some small boats (presumably of wood construction) plied the Rio Grande below Laredo in the late 1700s. Kelley reported that “Captain Borrego, owner of [Hacienda de Dolores], had at least one flatboat equipped with a stern sail” and that “sometime after [Tienda de Cuervo’s] inspection,” a Laredo resident used a flatboat to travel to Reynosa to trade for salt.⁴⁸

Successful early use of boats on the lower Rio Grande sparked interest in and raised hopes about using watercraft to transport goods and people up and down (not just across) the river. An early proponent of water travel on the Rio Grande was Fray Vicente Santa María who in 1787 published a history of Nuevo Santander, at the time a sparsely populated area known as Seno Mexicano (translated by Kelley as “Mexican womb” but could also mean bosom, cavity, trough).⁴⁹ Whether Santa María visited any portion of the Rio Grande about which he wrote is disputed, but indisputable was his focus on the possibilities the river—“one of the most interesting objects of just attention”—held for both Nuevo Santander and provinces along the Rio Grande inland from the Gulf of Mexico. Santa María described the Rio Grande as subject to spring floods that made it “navigable through [Nuevo Santander] for medium-sized boats and perhaps farther—into the provinces of Coahuila and New Mexico.” Although he accurately depicted the reefs, shallows, and falls of the river below present-day Eagle Pass–Piedras Negras and on the lower Rio Grande, Santa María asserted that the river could “become as the Mississippi has become to Louisiana.”⁵⁰ At the time, Santa María knew about downriver journeys between Laredo and Reynosa by flatboat (possibly trading contraband tobacco for salt) but was unaware of “any upriver navigation from the Gulf of

⁴⁶ Tienda de Cuervo quoted in Kelley, *River of Lost Dreams*, 6.

⁴⁷ Kelley, *River of Lost Dreams*, 6.

⁴⁸ Kelley, *River of Lost Dreams*, 6.

⁴⁹ Kelley, *River of Lost Dreams*, 7. See “seno,” *Cambridge Spanish Dictionary*, accessed June 11, 2024, <https://dictionary.cambridge.org/us/dictionary/spanish-english/seno>.

⁵⁰ Santa María quoted in Kelley, *River of Lost Dreams*, 7.

Mexico.”⁵¹ Due to the lack of a port at the mouth of the Rio Grande and the government’s refusal to allow domestic exports or foreign imports to enter the country anywhere other than Veracruz, “there was simply no incentive,” as Kelley explained, to go upriver on the Rio Grande in the late eighteenth century.⁵²

By the 1790s, non-Indigenous inhabitants of the *villas del norte* downstream from Laredo “complained of stark danger and appealed for immediate relief from the governor.”⁵³ Residents demanded assistance against the Apache, Lipan, and Comanche who were raiding non-Indigenous settlements. In response, the government sent Lieutenant Colonel Félix María Calleja del Rey to inspect the area and make recommendations for how to ameliorate attacks by the Indians and develop the provinces—in other words, increase Spanish colonization to Nuevo Santander.⁵⁴ In his 1795 report, Calleja commented on the region’s economic and social chaos. Ultimately, Calleja reported that calming tensions between Indians and colonists and increasing exports and imports via the Rio Grande would “make subsistence less expensive and more comfortable.” He asserted that these changes would advance ideas, customs, goods, and other “avenues of improvement,” of which the current residents were either “ignorant” or chose to ignore.⁵⁵

⁵¹ Kelley, *River of Lost Dreams*, 8.

⁵² Kelley, *River of Lost Dreams*, 8.

⁵³ Vigness, “Nuevo Santander in 1795,” 463.

⁵⁴ Calleja, quoted in Vigness, “Nuevo Santander in 1795,” 478.

⁵⁵ Calleja, quoted in Vigness, “Nuevo Santander in 1795,” 479.

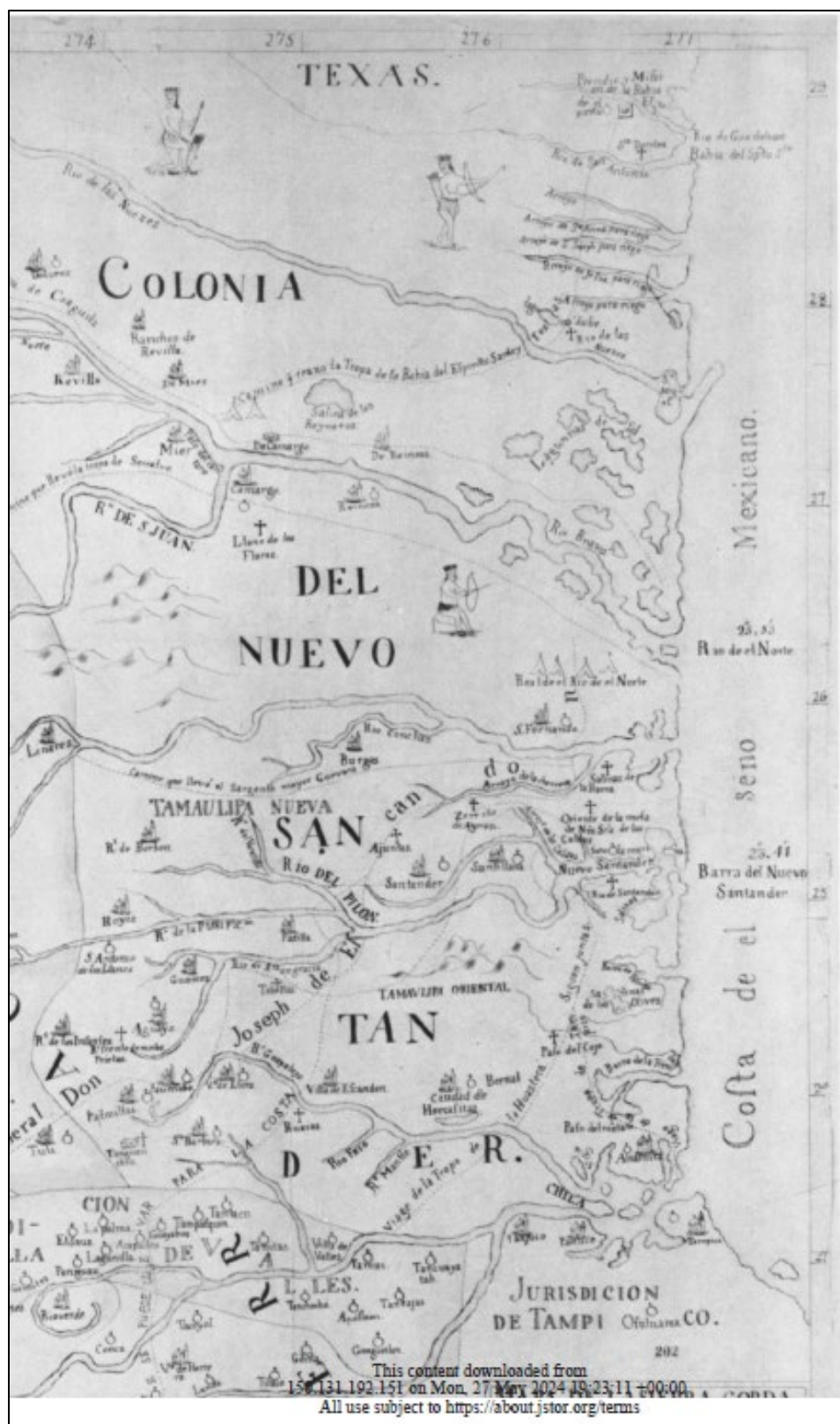


Figure 1. Alejandro Prieto, “Mapa de la Sierra Gorda, y Costa [del] Seno Mexico,” partial, to accompany Calleja’s report. Source: Vigness, “Nuevo Santander in 1795.”

A key feature of Calleja's recommendations was to develop the rivers of Nuevo Santander and bypass the monopoly Veracruz had on shipping. To facilitate exports, Callejas proposed to "habilitate" a port (in the Spanish sense of the mouth of a river) at either the "better located" Tampico or Santander (present-day Soto la Marina), which he thought "could be improved easily."⁵⁶ (Figure 1) Although he preferred the rivers on which these established towns sat, Calleja also considered the Rio Grande as potentially supporting riverine commerce. Approximately 400 to 825 feet wide (depending on the season) and without a "ford except in dry years or at a great distance from the coast," the river near the Gulf of Mexico seemed viable for the use of commercial watercraft.⁵⁷ The Rio Grande was deeper closer to the ocean; however, it became increasingly "contrary" (potentially a reference to its numerous *bancos*—shifting sections of land caused by the river's movement), was exposed to the elements, and ended in two mouths, "the northern of which is shallow, dangerous, and useless."⁵⁸ Although the southern end of the river near the Gulf of Mexico was deep, wide, and clean, the sandbar that crossed the mouth river where it met the ocean would "never permit passage of [the larger] ships that would bring commerce."⁵⁹ For "small ships," Calleja estimated the Rio Grande from its mouth was "[navigable] to Laredo, 100 leagues distant from the sea and very close to the four provinces."⁶⁰

Callejas advocated expanding Americans' ability to access markets in Mexico, noting that if they "installed factor[ie]s [*sic?*]" at a port on the Rio Grande, they could "transport goods 100 leagues inland and by the coast to all the ports of the Seno [Mexicano]." (Laredo was mostly likely what Callejas' was referring to as "100 leagues inland.") He was unconcerned about opening Nuevo Santander rivers and ports to foreigners, noting that they were "not in a state to conquer territory that lies beyond [their borders] or to extend their dominions" but rather "it [was] enough that they extend their commerce, affording exportation of their many and good products."⁶¹ Any plans that might have been made took a backseat during the war for Mexican independence. By the early 1820s, however, visionaries from Mexico and the United States (the three hundred families Stephen

⁵⁶ Calleja, quoted in Vigness, "Nuevo Santander in 1795," 481. Tampico is located at the mouths of the Tamesi and Panuco Rivers on the border with the state of Vera Cruz; what Calleja refers to as Santander was likely at that time, Nuevo Santander, or today's Soto la Marina, on the river with the same name (482n35).

⁵⁷ Calleja, quoted in Vigness, "Nuevo Santander in 1795," 470–71.

⁵⁸ Calleja, quoted in Vigness, "Nuevo Santander in 1795," 471. A 1912 survey located, mapped, and placed permanent monuments at eighty-nine *bancos* in the lower Rio Grande. For more on the problems the mobile nature of the river created during the international boundary survey, see Mrs. Albert S. Burleson, "Wandering Islands in the Rio Grande," *National Geographic* (March 1913): 381–86.

⁵⁹ Calleja, quoted in Vigness, "Nuevo Santander in 1795," 471, quotation on 482. Brackets in original translation.

⁶⁰ Calleja, quoted in Vigness, "Nuevo Santander in 1795," 482. Brackets in original translation.

⁶¹ Calleja, quoted in Vigness, "Nuevo Santander in 1795," 503. Brackets in original translation.

Austin brought to the Brazos River) turned their attention to the Rio Grande. In 1822, Teodoro Ortiz y Ayala, echoing Calleja, recommended that Mexico develop the Rio Grande as a means by which to both secure the northern border, protect California from American, English, or Russian expansion, and ward off Indian incursion and depredation. On November 4, 1824, the Mexican government passed a decree under its new constitution that included, among other things, opening the Rio Grande for navigation.⁶²

The first steam-powered watercraft began to ply the Rio Grande in either late 1824 or 1825. Thereafter, the use of steam-powered watercraft expanded on the lower Rio Grande. Inspired by descriptions of the commercial potential of the Rio Grande, Mexican Colonel Juan Davis Bradburn and Englishman Stephen H. C. L. Staples introduced a steam-powered boat to the Rio Grande after the November 1824 decree. According to Kelley, Bradburn and Staples intended to “explore the limits of navigability” with this vessel, not to conduct trade.⁶³ At the same time, trading ships loaded with contraband bound via Matamoros to the interior of Mexico found and began to regularly use the only reliable entrance to the Rio Grande between South Padre and Brazos Island (El Paso de Los Brazos de Santiago). Because of the bar at this location, larger ships arriving there either lightered their goods to Point Isabel, from whence they were hauled overland in wagons, or offloaded their goods onto shallow-draft vessels headed upriver to Matamoros. Some shallow-draft oceangoing ships occasionally made their way upriver, but steam power was not yet in widespread use for commerce in the early 1820s.⁶⁴

Between spring 1828 and spring 1829, the Mexican states of Chihuahua, Coahuila y Texas, and Tamaulipas each granted Bradburn and Staples, who had a steamboat on the Rio Grande at that time under the national decree, an official concession to establish commercial trade on the river.⁶⁵ The concessions gave them two years to put steam or horse-drawn boats into service. How far Bradburn and Staples reached upriver from Tamaulipas, where they had their first steamboat, is unknown. Kelley speculated that while they might have made it to the falls of the Rio Grande, they

⁶² Kelley, *River of Lost Dreams*, 13–15.

⁶³ Kelley, *River of Lost Dreams*, 18.

⁶⁴ Kelley, *River of Lost Dreams*, 16–17.

⁶⁵ Frank Cushman Pierce, *Texas' Last Frontier: A Brief History of the Lower Rio Grande Valley* (Menasha, WI: Banta, 1917; rpt, Brownsville: Rio Grande Valley Historical Society, 1962), 122–23, esp. 122; and Kelley, *River of Lost Dreams*, 18. According to Kelley, American-born John Bradburn participated in various efforts related to Mexican independence, having joined Francisco Mina's ill-fated expedition in 1817 (Kelley, *River of Lost Dreams*, 12–13). Colonel Bradburn likely became a naturalized citizen before 1828; Kelley spells his first name *Juan* when discussing Bradburn and Staples in 1828 (*River of Lost Dreams*, 18). Kelley noted that the official documentation of these grants for Nuevo León and Tamaulipas have not been found, but that Berlandier mentioned the concession from Tamaulipas in his *Journey to Mexico*, 1:268.

more likely “reached the broad sand and gravel shoal above the Rio Salado or a ledge below Laredo.”⁶⁶ Bradburn and Staples recommended the river could be best used with “a mix of horse-drawn boats” and smaller steamers for the section between Devil’s River and the falls of the Rio Grande. Small steamers headed downriver would stop at the falls. At that point, goods would be offloaded, portaged over land to the end of the rapids, and then reloaded onto either steamers or horse-drawn boats (depending on the water level) that would transport goods to the ledge below Laredo. Thereafter, larger vessels would complete the journey to Matamoros.⁶⁷ According to Kelley, after their survey, Bradburn and Staples seemed to split up, possibly to start at each end of the river and work toward each other. Having only completed one year of work, Bradburn was called back to fight for Mexico against the Spanish in 1829. Although Bradburn and Staples received a six-month extension on their national concession, none of their speculation came to pass.

In 1829, Henry Austin acquired the Tamaulipas grant; his authorization to operate steamboats (*barques de vapor*) in Tamaulipas seems to have been renewed in 1830.⁶⁸ “Ever hopeful” (Kelley’s words) Chihuahua retained the grant, but no evidence suggests that Bradburn or Staples ever tried to further develop the Rio Grande in that state. Soon after Austin took over the Tamaulipas grant, Coahuila let its concession (which Austin tried unsuccessfully to secure) expire. Aside from Tamaulipas’s grant to Austin, no evidence exists to show that either the Mexican government or individual states thereafter tried to open the Rio Grande for regular upstream/downstream travel for any kind of vessels.

With the Tamaulipas concession in hand, Austin tried without success to develop commercial navigation on the Rio Grande with the small steamer *Ariel*. He arrived on the Rio Grande in summer 1829.⁶⁹ In an October 24, 1829, editorial, the San Felipe *Texas Gazette* reported (somewhat erroneously, given the work of Bradburn and Staples) that Austin was the first person “to introduce this species of navigation on any of the rivers of the Mexican Republic.” The editor

⁶⁶ Kelley, *River of Lost Dreams*, 19.

⁶⁷ Kelley, *River of Lost Dreams*, 19.

⁶⁸ Kelley, *River of Lost Dreams*, 19. The Briscoe Center at UTA possesses an authorization for Henry Austin (“Enrique Austin”) to operate “*barques de vapor*” on the Rio Grande in Tamaulipas. The handwritten, Spanish-language document is on letterhead printed with both 1829 and 1830 dates and no discernible, legible written date. Whether this is the original authorization or an extension is unclear. Presumably deciphered by an archivist, the single document is in a folder labeled “1830, Austin, Henry, Authorization [to Operate Ferry], March 1, 1830” (Box 3N175, Eberstadt Collection, UTA) but the term “ferry” seems to be a modern translation of *barques de vapor*, more accurately translated as steamboats.

⁶⁹ Austin’s biographer, William Ransom Hogan reported that he arrived on the Rio Grande in June 1828 (“The Life of Henry Austin,” *Southwestern Historical Quarterly* 37, no. 3 [January 1934]: 185–214, 190); Kelley claimed it was in August 1829, citing several sources, including (in a general sense) William Ransom Hogan, “The Life of Henry Austin,” *Southwestern Historical Quarterly* 37, no. 3 (January 1934): 185–214 (*River of Lost Dreams*, 20, 124n12).

lauded Austin for the “degree of bold adventurous enterprize [*sic*]” he displayed and reported that the *Ariel* had “successfully ascended to the town of *Revilla* [Guerrero], about 300 miles from the mouth.” Low water making it dangerous to proceed further, Austin decided to wait “until the spring freshets” before attempting to push farther upriver. This feat proved the “boldness” of Austin’s operations, as “no species of navigation [had] ever been attempted,” above Matamoros, “not even with canoes.”⁷⁰ With the *Ariel* drawing five feet, Austin was limited in the extent to which he could navigate even the lower Rio Grande, which restricted him to trading between Camargo, Reynosa, and Matamoros.⁷¹

Ultimately, Austin’s purported success was a short-lived veneer. He was unable to operate during periods in fall 1829 due to his crew being sick with cholera and then again in spring 1830 when Austin himself was ill.⁷² By July 1830, Austin had given up on the Rio Grande and departed for his cousin Stephen Austin’s colony on the Brazos River, “despite his fear, expressed only half facetiously [to Stephen Austin], that the ‘river may dry up and prevent my departure.’”⁷³ After a series of unfortunate events, the *Ariel*, according to Austin, “was laid up to rot in the San Jacinto [River].”⁷⁴

After Austin’s departure, his young pilot, Alpheus Rackliffe went into business for himself. Rackliffe brought keelboats (“variously referred to as *flatboats* and *barges*”⁷⁵) to the Rio Grande and transported goods to stops between Matamoros and the Presidio del Río Grande until at least

⁷⁰ San Felipe *Texas Gazette* quoted in Hogan, “Life of Henry Austin,” 190. Kelley claimed that Austin made it to Mier, which is approximately thirty-eight river miles below Revilla on the Río Alamo (*River of Dreams*, 20).

⁷¹ Berlandier reported that Austin told him the *Ariel* drew 3 ½ feet (*Journey to Mexico*, 2:442), which was contrary to the more than 5 feet his pilot, Alpheus Rackliffe said she needed (Kelley, *River of Lost Dreams*, 20). Berlandier’s encounter(s) with Austin likely occurred during the months in late 1829 and the first half of 1830 when they both lived in the general area and were likely acquainted with each other through travel on the river.

⁷² Hogan, “Life of Henry Austin,” 190; and Kelley, *River of Dreams*, 20.

⁷³ Hogan, “Life of Henry Austin,” 191.

⁷⁴ Austin quoted in Hogan, “Life of Henry Austin,” 193. Brackets in original.

⁷⁵ Kelley, *River of Lost Dreams*, 20.

1846.⁷⁶ Boat traffic steadily increased over the 1830s on the river, with steamers landing in Laredo and Matamoros in 1834, and another steamer making Laredo its homeport in 1837.⁷⁷

After fighting broke out in April 1846, marking the beginning of the Mexican-American War, the U.S. military began to step up its presence in the territory known as the Nueces Strip (between the Nueces River and the Rio Grande), with special attention given to taking control of Camargo (“the [Mexican] jumping-off point for Monter[rey]”), Matamoros, and the lower Rio Grande.⁷⁸ In June 1846, Major John Saunders, set out to commandeer a fleet of boats suitable to the conditions of the lower Rio Grande. He hired experienced ship captain Mifflin Kenedy (originally from Florida) to help with the effort. Among the original steamboats Saunders acquired were the *Corvette*, *Colonel Cross*, *Major Brown*, and *Whiteville*.⁷⁹ In July 1846, General Zachary Taylor and his staff traveled from Fort Brown at Brownsville to Fort Ringgold on the *Corvette* and other boats under Kenedy’s guidance and command.⁸⁰

After 1848, a variety of people traveled on the lower Rio Grande in steamboats run by several men and companies that would forever be associated with the region. In addition to Kenedy were Richard King (who had worked as a pilot for Kenedy in Florida and on the lower Rio Grande during the war), Charles Stillman, Samuel Belden, and Brevet Major W. W. Chapman (first in his role as assistant quartermaster for the U.S. Army and later as a private operator).⁸¹ After the war, Chapman began disposing of surplus steamboats to various individual and corporate operators.⁸²

⁷⁶ Kelley, *River of Lost Dreams*, 20. Kelley said that Rackliffe received a commission from the Mexican government to survey the Rio Grande and chart “channel width, river width, channel depth, and bank heights at least to the Sierra Blanca—a mountain chain in Chihuahua.” According to Kelley, Rackliffe “got that far” and possibly beyond El Paso. Kelley cites this to Tilden, *Notes on the Upper Rio Grande*; and account by Thomas Jefferson Green, who took part in the so-called Mier Expedition of 1844; Egerton, *Important Report*; and an unattributed diary of Rackliffe owned by descendants in Laredo. I have not seen the diary, but Kelley noted that “it was mostly filled with praise for the beautiful young lady” who would become his wife (124n14). I have also not seen Green’s account; however, the subject matter suggests that references to Rackliffe were about his vessels on the lower Rio Grande and any participation or associations he might have had during that time. Egerton makes no mention of Rackliffe that I can find (his report was republished in chunks part in the first volume of Kennedy, *Texas*. Finally, although Tilden praised his long history of commanding boats on the lower Rio Grande, calling him “the first navigator of the Rio Grande in American-built flatboats,” he provided no evidence either that Rackliffe received a commission and conducted a survey of the Rio Grande or that he ever took one of his own steamboats above the falls of the Rio Grande (“To Dr. A. Rackliffe,” December 1, 1846, in Tilden, *Notes on the Upper Rio Grande*, iii).

⁷⁷ Kelley, *River of Lost Dreams*, 22. What role Rackliffe may have played in this trade is unknown. However, he was apparently still operating in 1846, when he joined the crew of the *Major Brown* on an early survey of the river (discussed later in this report).

⁷⁸ Kelley, *River of Lost Dreams*, 31.

⁷⁹ See Pierce, *Texas’ Last Frontier*, 30, 123; and Harbert Davenport, “Notes on Early Steamboating on the Rio Grande,” *Southwestern Historical Quarterly* 49 (October 1945): 286–89, esp. 287–88. Pierce referred to Saunders as an engineer; Davenport said he was “of the quartermaster’s department,” which seems more likely.

⁸⁰ Pierce, *Texas’ Last Frontier*, 30, 123. See also Kelley, *River of Lost Dreams*, 34.

⁸¹ Kelley, *River of Lost Dreams*, 34.

⁸² Kelley, *River of Lost Dreams*, 35.

Among these were M. Kenedy & Company (in different configurations over the next at least twenty years), Bodman and Clark, Stillman's operation, Williams & P. H. Collier, and even the French government.⁸³ According to Pierce, Kenedy and his partners purchased and operated twenty-six boats on the lower Rio Grande, including *Comanche*, *Grampus*, *Alamo*, *Ranchero*, *Camargo*, *Paisano*, *Matamoros No. 1*, *Matamoros No. 2*, *John Scott*, *San Roman*, *Sellers*, *Alice*, *Jesse B*, *Eugenio*, *Antonia*, and several others, all of which were used "as freighters between Brownsville and the mouth of the river; and those of sufficiently light draught as far as Ringgold Barracks."⁸⁴ No historical evidence suggests that any of these boats regularly operated as far upstream as Laredo.

On July 6, 1849, Chapman reported the presence on the lower Rio Grande of both the *Major Brown*, which could hold 1,200 barrels of stores, and the *Corvette*, which could hold 1,500 barrels. Chapman noted that both boats were "reserved for running between Fort Brown [present-day Brownsville] and the head waters of steam boat navigation on the Rio Grande," the location of which he did not specify but by which he likely meant Fort Ringgold/Rio Grande City. Also traversing the lower Rio Grande were "several wooden and iron surf boats, yawl boats, flat boats, whale boats, and small sail boats" under Chapman's purview.⁸⁵

As described in the next section, a series of military surveys between 1846 and 1850 sought to determine whether keelboats or steamboats could ascend the Rio Grande beyond its lower reaches for strategic (rather than commercial) reasons. Although the authors of the reports associated with those expeditions were optimistic that with funding for engineering projects, these vessels might be able to regularly ascend the river, Kelley's research indicated that "most private captains restricted themselves" to routes that went no farther than Camargo or maybe Mier.⁸⁶ However, neither of these cities, both of which were on tributaries to the Rio Grande, were easily accessed by keelboats or steamers or necessarily profitable for the operators who ran them. The prospects were even less appealing upstream on the Rio Grande above these towns. The few

⁸³ For more about the complicated nature of early steamboat commerce and a detailed list of owners and boats plying the lower Rio Grande, see Kelley, *River of Lost Dreams*, chaps. 3 and 4 and Appendix 1, respectively.

⁸⁴ Pierce, *Texas' Last Frontier*, 123, 150. According to Horgan, many people sailed to the mouth of the Rio Grande and then made their way up the river "in rusty steamboats left over from the war" to Mier or Camargo. Horgan quoted a passage from an emigrant en route from Brownsville to Roma who traveled on a the "very light draught . . . splendid, fast-sailing, high-pressure steamboat 'Tom McKinney,' propelled by an engine of four crab power, the steam being furnished from two enormous boilers formerly used on a first-class Mississippi boat (quoted in Horgan, *Great River*, 2:785).

⁸⁵ Major W. W. Chapman, Report of Public Steamboats and Other Craft in the District of the Rio Grande," July 6, 1849, File: "Chapman, W. W. (Maj.) (1849-1850)," Box 296, Entry (NM-81) 225: Consolidated Correspondence Files (CCF), Record Group 92: Office of the Quartermaster General (RG 92), National Archives and Records Administration, Washington, DC (NARA-DC).

⁸⁶ Kelley, *River of Lost Dreams*, 44.

captains who “pushed their boats” upriver to Laredo or even as far as Kingsbury’s Falls “returned to the lower [Rio Grande] with a single-minded message: there was neither produce nor profit upriver that could not be obtained, at much less cost, downriver.”⁸⁷

Following the Mexican-American War, several steamboats plied the lower river under the command of Kenedy and his partners, Stillman, and others. During the Civil War, with the Union blockading the Rio Grande at the Gulf, Kenedy and Company monopolized riverine transport of Confederate trade in cotton and other goods on the lower Rio Grande. Most of the cotton, however, was transported from Corpus Christi to Laredo or Eagle Pass, where boats carried it across the river to Piedras Negras and then wagons transported it to Mier, Camargo, and Matamoros, or Bagdad, which had specific immunity from the blockade. No historical evidence suggests that Confederate cotton or other goods were moved downriver from Eagle Pass–Piedras Negras. The Rio Grande remained impassable at the falls of the Rio Grande and obstructed at numerous other locations below that point.

However, other shipments were transported overland to Laredo, where goods were loaded onto flatboats or sometimes steamboats for the downriver trip. By this time, although some steamers were still able to travel in high water on the river in certain obstacle-strewn stretches of the lower Rio Grande below Laredo, upstream irrigation had lowered the river by thirteen inches, according to Kelley. Whether due to irrigation or the river’s natural variations, in 1865, the river was low enough to ground and sink a steamer on “the shoal bar of an island” north of Zapata.⁸⁸

After the war, Kenedy and Company maintained their grip on the steamboat trade in the lower Rio Grande and ran charters for the U.S. Quartermaster Department.⁸⁹ At the same time, upriver irrigation continued to lower the water level in the river even farther. By the end of 1869, Kelley reported, the water was down more than two feet at Roma. New obstructions to passage and new fords in areas that had once been deeper water appeared.⁹⁰ In 1874, Kenedy, King, and Company sold their interest to successor, William Kennedy, who acquired sixteen boats—four

⁸⁷ Kelley, *River of Lost Dreams*, 44.

⁸⁸ Kelley, *River of Lost Dreams*, 73. As Kelley noted, the steamer may have been the *Exchange*, which Emory reported seeing in 1853 (Appendix 1). Emory however, described the wreck as being at the site of twin reefs not an island per se. Certainly, changing river levels due either to lower water levels caused by either upstream irrigation or to a different seasonal condition on the river in 1865 could have changed the character of this specific obstruction. See William H. Emory, *Report on the United States and Mexican Boundary Survey, Made under the Direction of the Secretary of the Interior*, Vol. 1 (Washington, DC: Cornelius Wendell, Printer, 1857), 70.

⁸⁹ Kelley, *River of Lost Dreams*, 76.

⁹⁰ Kelley, *River of Lost Dreams*, 77.

specifically for use in the upper stretches of the lower Rio Grande below Laredo.⁹¹ Unfortunately for Kennedy, the timing of the sale coincided with the completion of a short-line rail between Point Isabel and Brownsville that dramatically reduced the number of boats needed between the gulf and Brownsville. As a result, within two years, twelve of the boats he had acquired were no longer in operation.⁹² Steamboats continued to transport goods Brownsville and the usual settlements—Reynosa-Edinburg, Camargo-Rio Grande City, and Mier-Roma. By this time, however, boats could only make it to Guerrero (in Tamaulipas, sixty miles downstream of Laredo), two months of the year and rarely, Laredo.⁹³



Figure 2. Steamer *Bessie* on the Rio Grande River loading up at Fort Ringgold, Tex., en route to Brownsville, ca. 1890. Source: National Archives at College Park, Public domain, via Wikimedia Commons.

In response to the changing river conditions, Kennedy bought a “new class of riverboat.” The *Bessie* was small, narrow-beamed, and had a shallow draft—according to Kelley, “about fifteen inches, loaded” (Figure 2 and Figure 3). A description of her mode of traversing the river conveyed a sense of just how tortuous a process it was: as “*Bessie* came to a bend, the wind would push her stern about in a grand arc until the bow was wedged into the bank; then she would float free and sail on downstream stem first. At another bend, a chance came to right matters . . . and the breeze and the current brought the bow around” pointing her forward “once more like a proper ship.” She

⁹¹ Kelley, *River of Lost Dreams*, 78, 82.

⁹² Kelley, *River of Lost Dreams*, 82.

⁹³ Kelley, *River of Lost Dreams*, 79.

would continue this process down the river. The *Bessie* was put into service, making trips as far as Mier (in Tamaulipas on the Río Alamo, almost one hundred miles downstream of Laredo).⁹⁴

Porfirio Díaz seized power in Mexico in 1876 and ushered in a period of economic development that breathed new life into steam travel on the lower Rio Grande. The stability Díaz's regime brought to Mexico fostered a period of growth in trade of Mexican agricultural goods and ores from the interior, which were transported overland to Mexican towns on the lower Rio Grande and from there on the river to Matamoros and Brownsville. For about five years, Kennedy's remaining boats stayed busy and a large fleet of steamships of all sizes loaded at Brazos Santiago on the Gulf of Mexico to convey goods around the world.⁹⁵ By 1882, the lower Rio Grande shipping boom was bust; once again, railroads (exacerbated by low water levels due to upstream irrigation) were largely to blame for destroying raised hopes of commercial use of the lower Rio Grande. The narrow-gauge Texas-Mexican Railway completed that same year between Laredo and Corpus Christi foretold the ultimate demise of Matamoros and Brownsville as the centers of the Mexican trade and the focus shifted away from those towns to Laredo and Corpus Christi. In 1902, the Laredo–Corpus Christi line was widened, and in 1904, Mexico built its own railway connecting the lower Rio Grande towns with the interior. After two years of making only “occasional unscheduled trips, the *Bessie* had her last voyage in 1904.”⁹⁶

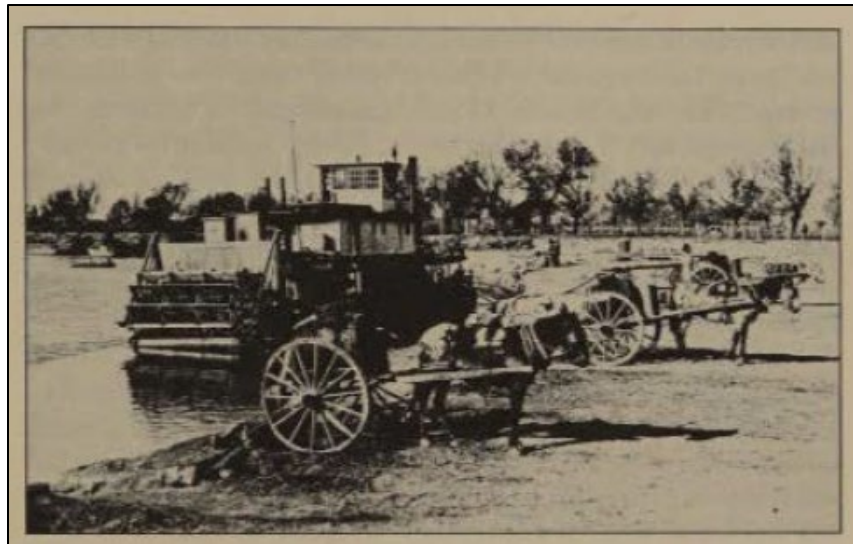


Figure 3. “The *Bessie* at dockside,” unknown location, ca. 1902. Source: Kelley, *River of Lost Dreams*, 83.

⁹⁴ Quoted in Kelley, *River of Lost Dreams*, 82.

⁹⁵ Kelley, *River of Lost Dreams*, 83, quotation on 82.

⁹⁶ Kelley, *River of Lost Dreams*, 84–85.

While steam trade on the lower Rio Grande diminished, from the 1870s until the early 1900s, steam barges transported coal on the river between four mining towns (known collectively as Las Minas) approximately thirty miles upstream of Laredo to downstream locations. Coal mining began in Webb County in 1873, when sheep rancher Charles Callaghan and Laredo mayor Refugio Benavides, began extracting coal from surface mines at a town that was likely once known as Carbon, now Minera, Texas (approximately RM 394; the other mining towns were Santo Tomas, Dolores [San Jose], and Darwin [Cannel]). After 1880, mining expanded, and the ore was either loaded onto steam barges or large mule-drawn wagons for the journey to Laredo. In 1882, the narrow-gauge Rio Grande and Pecos Valley Railroad was constructed to Minera, likely eliminating the need for wagons.⁹⁷ The historical record does not specify when barging ended, but an 1890 image depicted a coal barge at Laredo (Figure 4). Kelley claimed in his 1986 book that coal transport from the mines to Laredo had shifted exclusively to rail (what he likely misidentified as the “Rio Grande and Eagle Pass Railroad”) sometime shortly after 1890 and that by 1894, steamer traffic had to have ended due to low water in the river (presumably both upriver and downriver from Laredo, although Kelley did not specify).⁹⁸ In 1995, Kelley stated that flatboats running coal from Laredo to Matamoros persisted even after the railroad was built, but that “the high cost of pulling the boats upriver eventually led to their discontinuance” sometime in the early twentieth century.⁹⁹ Despite Kelley’s reference to the Rio Grande and Eagle Pass Railroad suggests that coal from the mines north of Eagle Pass that opened in 1885 comprised some of the coal being shipped to Laredo in the 1880s and 1890s, historical evidence does not suggest that any of this coal was barged to Laredo.¹⁰⁰ Neither steamships nor flatboats could pass the falls of the Rio Grande or other obstacles between Eagle Pass and Laredo and mine owners would have had no incentive to barge coal to Laredo when a rail line existed immediately adjacent to the mines.¹⁰¹

Although an 1895 U.S report noted that the “[lower] Rio Grande . . . [was navigable for a short distance from Matamoros to the interior for good-sized boats, and small craft ascend as far as

⁹⁷ Rene Raymond Meza, “Minera, TX,” *Handbook of Texas*, May 1, 1995, <https://www.tshaonline.org/handbook/entries/minera-tx>.

⁹⁸ Kelley, *River of Lost Dreams*, 85. Compare with M. G. Pat Kelley, “Navigation on the Rio Grande,” *Handbook of Texas*, December 1, 1995, <https://www.tshaonline.org/handbook/entries/navigation-on-the-río-grande>.

⁹⁹ Kelley, “Navigation on the Rio Grande.”

¹⁰⁰ Texas Historical Commission, “Eagle Pass Coal Mines, Atlas Number 5323001327,” Texas Historical Marker placed 1975, Texas Historical Sites Atlas, <https://atlas.thc.texas.gov/Details?fn=print&atlasnumber=5323001327>.

¹⁰¹ Although I was unable to locate a sheet of the 1885 or 1894 Eagle Pass Sanborn Map showing the rail line in relationship to the coal mines, the 1905 Sanborn depicted the Eagle Pass Coal and Coke Co., on the rail line, “3 Miles N. of P.O.” (presumably, post office), with a coal tippie crossing four tracks (Eagle Pass 1905 Sheet 4, map, 1905, Portal to Texas History, <https://texashistory.unt.edu/ark:/67531/metaph544434/m1/1/>).

196 miles from this point” (approximately, Camargo/Rio Grande City), this description belied the fact that river trade anywhere on the river, was in steep decline.¹⁰² The steamer *Bessie* ceased operations in 1904. By 1917, the lower Rio Grande was littered with many of the vessels that had once plied its waters. According to historian Pierce, writing in 1917, “most of them still lie in the river. The *Corvette*, which transported General Taylor, lies in the bed of the river about 500 yards off the International bridge where her ribs may be seen during low water. Three of the old timers were sunk just about where the present St. L, B. & M. Ry. [St. Louis, Brownsville, and Mexico Railway] is constructed.” Instead of providing riverine transportation, these scuttles were now “preventing the encroachments of the river and serving as a shield for the bank against its fierce floods during high water.”¹⁰³ The age of steamboat commerce on even the lower Rio Grande was over.

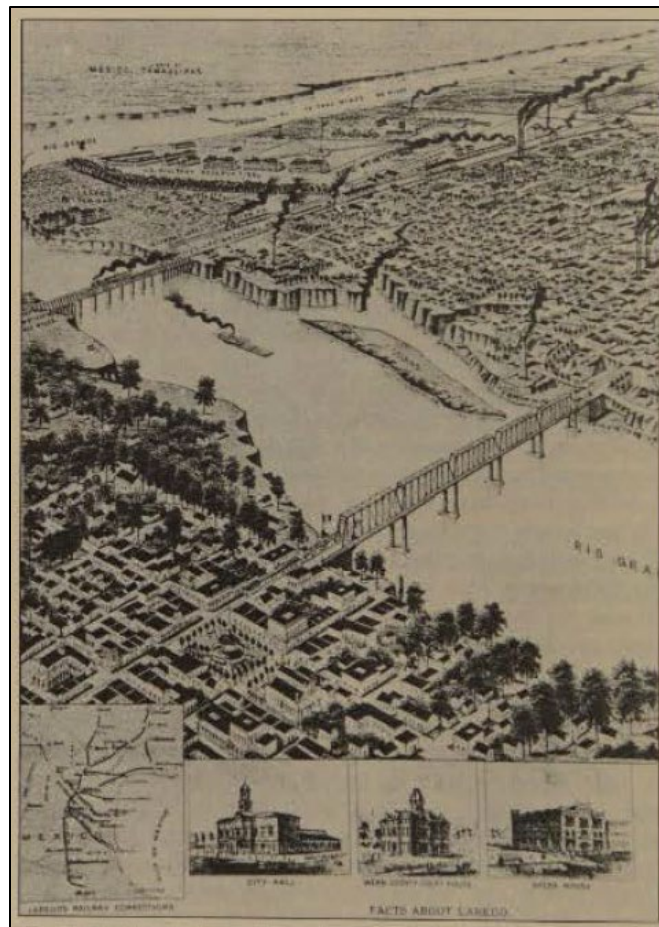


Figure 4. Lithograph map of Laredo, 1890, depicting coal barge. Source: Kelley, *River of Lost Dreams*, 86.

¹⁰² U.S. Bureau of Foreign Commerce, Special Consular Report, *Highways of Commerce: The Ocean Lines, Railways, Canals, and Other Trade Routes of Foreign Countries* 12 (Washington, DC: GPO, 1895), 58.

¹⁰³ Pierce, *Texas' Last Frontier*, 123.

4.3 Surveying the Rio Grande Upstream from Laredo, 1828-1916

During the period between 1828 and 1853, several one-off expeditions set out to survey the Rio Grande in attempts to figure out the extent to which watercraft could travel upstream from Laredo. The area upriver was largely unpopulated except for bands of Indigenous people, Spanish missionaries living in San Juan Bautista, and their military protectors at Presidio del Río Grande. Upstream of the mission, few if any villages existed on either side of the river until the founding of Eagle Pass in 1849 and Piedras Negras in 1850.¹⁰⁴ These hopeful enterprises included the Mexican Boundary Commission survey in 1828; a survey conducted by William Egerton in 1834 on behalf of a failed private attempt to “colonize” the area around present-day Del Rio, Texas; at least five U.S. military expeditions in 1849 and 1850; and a joint U.S.-Mexican boundary survey in 1853. In addition to surveying and mapping the river related to boundary claims, the goal of most of these surveys was to understand the Rio Grande’s potential for supplying military posts, regular commerce, communication, or transport to augment or even replace extant overland paths, trails, or roads. Despite the optimism and earnestly strenuous efforts of the people who led these surveys, the realities of the river’s impassable physical qualities (especially above Laredo) doomed the success of the potential recommendations they each made.

In its natural state, the falls of the Rio Grande (Kingsbury’s Falls) and other obstacles along with unpredictable rises and falls in water level, prevented a practical, continuous route for travel by watercraft of even the shallowest draft. Surveyors and mid-nineteenth-century promoters of regular travel (especially U.S. Army assistant quartermaster W. W. Chapman between 1849 and 1852) on the Rio Grande pressed for a series of modifications to open the river that they often claimed would be

¹⁰⁴ Historians dispute the exact date of Eagle Pass’s founding. According to Pingent, Fort Duncan was founded in 1849 and Eagle Pass in 1850 at their current location (Pingent, “Eagle Pass, TX”). However, another source reports that Eagle Pass was founded 1849 alongside Fort Duncan (“Eagle Pass Established 1849 at Gates of Ft. Duncan,” *Eagle Pass News-Guide*, October 1949). Maverick County was first established in 1856, then formally created with Eagle Pass as its seat in 1871 (Pingent, “Eagle Pass, TX”). Also disputed is the date Eagle Pass was formally incorporated. According to *Encyclopedia Britannica*, it was 1908 (“Eagle Pass,” *Encyclopedia Britannica*, last updated May 2, 2024, <https://www.britannica.com/place/Eagle-Pass>) but Texas Municipal League stated that it was 1910 (“City of Eagle Pass,” *TML City Officials Directory*, accessed June 12, 2024, <https://directory.tml.org/profile/city/1257>). Piedras Negras was founded first as Paso de Piedras Negras (at the location of a ford at that site known to Mexicans) in April 1850 then renamed Nueva Villa de Herrera, which merged with the extant military colony and officially became the City of Piedras Negras on June 15, 1850. Military colony folded in 1855, after which it was known as Villa de Piedras Negras. In December 1888, the city was renamed Ciudad Porfirio Díaz; the name Piedras Negras was restored in December 1911 (Otto Schober, “Breve historia de Piedras Negras,” 2005, accessed June 12, 2024, Internet Archive Wayback Machine, <http://www.piedrasnegras.gob.mx/contenido05/conoce-pn/historia/>).

easy and relatively inexpensive. Ultimately, however, no public or private entity found the potential benefits of such efforts compelling enough to fund and execute.

Riverine travel never replaced overland military supply or trade routes, as men like Chapman had hoped. After 1852, the U.S. Army does not appear to have considered opening the Rio Grande again. The coming of the railroads in 1882 to Eagle Pass–Piedras Negras and other cities combined with heavy use of the river upstream for irrigation, which increasingly lowered the amount of water in the lower reaches of the river, put the final nails in the coffin of any possible development of the river for commerce or trade between RM 275.5 and 610.

Two more boundary surveys—one in 1898 and one in 1901—made the downriver journey in small boats. Unfortunately, on the 1901 expedition, the falls that had always thwarted use of the Rio Grande for riverine commerce and trade claimed the life of one of the surveyors. Thus by 1916, when the U.S. military again surveyed the Rio Grande during the Mexican Revolution, the Army’s concern (as evidenced by mapping of extant and potential infrastructure) was fords, “ferries,” and bridges. There was no evidence of upstream or downstream military travel either existing or considered.

4.3.1 Jean Louis Berlandier and the Mexico Boundary Commission Survey, 1828

Just before Henry Austin embarked on his failed experiment with steamboating on the lower Rio Grande, Swiss-French naturalist Jean Louis Berlandier departed from Mexico City in November 1827 to serve as botanist and zoologist for the Mexican Boundary Commission survey, led by General José Manuel Rafael Simeón de Mier y Terán. Both as part of the Boundary Commission survey in 1828 and thereafter on his own, Berlandier kept detailed records of the natural world he viewed around him along the segments of the Rio Grande that he surveyed.¹⁰⁵ He settled permanently in Matamoros in 1829, where he lived until drowning in the San Fernando River in 1851.¹⁰⁶ Berlandier reported that his expedition forded the Rio Grande at a spot along a route “generally frequented by travellers going to Texas” at the downstream end of a narrow island in the

¹⁰⁵ The introduction to Berlandier’s compiled writings tried to explain the complicated nature of his expeditions, both professional and personal, which are hard to follow. Additionally, much of what Berlandier wrote was likely a “joint effort.” For the purposes of this report, I focus on the substance of his geographical and natural descriptions rather than on the specifics of his journeys, which are not always clear. Refer to C. H. Muller, “Introduction,” Berlandier, *Journey to Mexico*, 1:xi–xiv, quotation on xiii.

¹⁰⁶ Clinton P. Hartmann, “Berlandier, Jean Louis,” *Handbook of Texas*, 1952, updated June 17, 2016, <https://www.tshaonline.org/handbook/entries/berlandier-jean-louis>. See also Muller, “Introduction,” 1:xi–xii.

river at that location (Map 4). “Because the river was extremely wide, so that in some places it carried about four feet of water, and because the current was extremely swift, everything was crossed on the back of a mule led by a horseman.”¹⁰⁷

Berlandier described the Rio Grande as being subject to both floods and droughts, sometimes overflowing and sometimes drying up in places, as well as how this variability helped or hindered the ability of watercraft to access certain parts of the river below Laredo.¹⁰⁸ Likely referring to the more variable sections (*bancos*) of the lower Rio Grande, where he ultimately made his home, he also noted the inconstancy of its course, “which varies almost every year in certain localities. . . . In 1832 it had moved one thousand varas farther to the north of its former course, which was transformed into a swamp.”¹⁰⁹ Berlandier was aware of Bradburn and Staples’s (“two Americans” [*sic*] with the “exclusive right” to explore the river in Tamaulipas and Coahuila y Texas) expedition having nearly reached Camargo in 1828 “when the river was high” and that another steamboat had been carrying merchandise between the Gulf of Mexico and Matamoros since 1832. An unidentified American beaver trapper supposedly had “assured” him that one could ascend the river “almost three hundred leagues [900 miles],” or as far as Big Bend, in a *chalana* (flat-bottomed boat used for the transport of goods on rivers and canals) or other kind of small vessel.¹¹⁰ Berlandier would have been familiar with *chalanas*, having crossed the Rio Grande in one near Laredo in summer 1828.¹¹¹ However, there is no historical documentation either to verify such an ascent by a beaver trapper. Furthermore, although American and Indigenous trappers are known to have been in Texas and even at times, in west Texas, the majority of the market was in eastern Texas, centered around Nacogdoches and the historical record does not suggest that regular commerce or trade in “fine-hair hides” (beaver, otter, martin, or ermine) existed on the Rio Grande anywhere between RM 275.5 and 610.¹¹²

Berlandier’s investigations of the river led him to the conclusion that the right type of boats could travel upriver from the Gulf of Mexico to the Presidio del Río Grande (by which he likely meant the base of the falls of the Rio Grande where what some have called the Old San Antonio or

¹⁰⁷ Berlandier, *Journey to Mexico*, 2:573.

¹⁰⁸ For example, Berlandier, *Journey to Mexico*, 1:266–67, 2:424.

¹⁰⁹ Berlandier, *Journey to Mexico*, 1:266.

¹¹⁰ Berlandier, *Journey to Mexico*, 1:268.

¹¹¹ Berlandier, *Journey to Mexico*, 2:424.

¹¹² J. Ryan Badger, “Texas in the Southwestern Fur Trade, 1718–1840,” unpaginated graduate student report no. 1277 (Utah State University, 2018), PDF pp. 7n5, 11, 14.
<https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=2302&context=gradreports>.

Old Presidio Road crossed the river at Paso de Francia [Maps 2, 4, and 6).¹¹³ He believed “navigation” of the Rio Grande “would be suitable for three kinds of steamboats, getting smaller and smaller in size. Some would go as far as Mier [from the Gulf of Mexico], others from Mier to Laredo, and the smaller from Laredo to [Presidio del] Río Grande, or as far as they could go until held back by shallows.”¹¹⁴ Berlandier optimistically predicted that there was enough wood along the banks of the river to fuel steamboats along with coal mines on the Mexican side (future surveys would call this assertion into question).¹¹⁵ Within the state of Coahuila itself, those living near the Rio Grande could travel on the river “without recourse to steamboats, as do those who live on the rivers which flow into the Mississippi.”¹¹⁶ Berlandier suggested that using timber rafts or *chalanas* “would have a double advantage” for Coahuilans wishing to sell agricultural products downriver. Not only could they fetch a better price for corn, which was “often very expensive” in Tamaulipas, but they could also sell the timber their rafts or *chalanas* were built of for a better price due to the scarcity of timber there.¹¹⁷ Although Berlandier was optimistic that commerce and trade could occur on the Rio Grande above Laredo, this never happened.

4.3.2 William Egerton / Rio Grande and Texas Land Company, 1832

In 1832, William Egerton set out to survey eight million acres in the Nueces Strip that the state of Coahuila y Texas had granted to empresarios John Beales (from England) and naturalized Mexican citizen James Grant (from Scotland). After receiving their contract, Beales and Grant formed the Rio Grande and Texas Land Company in New York to raise money and find eight hundred colonists to settle the land; they had four years to complete this feat to receive an award of surplus land (Figure 5).¹¹⁸ To expedite the process while Beales and Grant worked to gather the first colonists in New York, Beales hired his “close friend and fellow Englishman” Egerton to explore the area and find a suitable townsite. Historian Kyle Carpenter has argued that Egerton’s survey of the grant was “poorly executed.”¹¹⁹ Unlike the meticulous surveys Stephen Austin, one of the most famous empresarios of the time, personally conducted before he settled his own colony in Texas,

¹¹³ Weddle, *San Juan Bautista*, 5n5; and Pingnot, “San Antonio Crossing.”

¹¹⁴ Berlandier, *Journey to Mexico*, 2:442.

¹¹⁵ Berlandier, *Journey to Mexico*, 2:443.

¹¹⁶ Berlandier, *Journey to Mexico*, 2:442.

¹¹⁷ Berlandier, *Journey to Mexico*, 2:443.

¹¹⁸ Kyle B. Carpenter, “A Failed Venture in the Nueces Strip: Misconceptions and Mismanagement of the Beales Rio Grande Colony, 1832–1836,” *Southwestern Historical Quarterly* 123, no. 4 (April 2020): 420–43, esp. 420, 430–31.

¹¹⁹ Carpenter, “Failed Venture,” 431.

Egerton rushed the survey then halted the investigation as soon as he found what he thought was a good site for the new settlement. The location, which would prove less than ideal, was on Las Moras Creek about fifteen miles upriver from its confluence with the Rio Grande, about thirty miles north of Eagle Pass–Piedras Negras.¹²⁰

¹²⁰ Carpenter, “Failed Venture,” 431.



Figure 5. Konen Marché, *Map of Texas Showing the Grants in Possession of the Colorado and Red River Land Compy*, 1835. Source: University of Texas at Arlington Libraries Special Collections, Gift of Virginia Garrett. Reprinted in Carpenter, “Failed Venture,” frontispiece.

Undoubtedly hoping to cast a rosy glow on the land his friend sought to settle, Egerton glossed over, exaggerated, and fabricated details about the land to which the Rio Grande and Texas Land Company would eventually send fifty-nine people to settle. He noted that in Tamaulipas “very severe droughts are generally experienced,” but claimed that this “evil diminish[ed] rapidly” above Laredo. Rather, expectant colonists would find “delightful breezes that continually blow,” summer nights that were “never sultry,” winters during which fires were not “absolutely *necessary*” (although potentially “*desirable*”), stock-raising country that “cannot be surpassed,” and plenty of wood and coal for fuel.¹²¹ Most important, however, was Egerton’s assertion that flatboats could negotiate the Rio Grande from Las Moras (what he referred to as “Dolores Ferry”) to Matamoros, meaning the colonists would be able to convey trade goods downstream.¹²² Furthermore, he speculated that the river was clear of obstructions through Chihuahua and into New Mexico.¹²³

Egerton’s description of the river did not support this claim—at least not without modifications to the river that never came to pass. He described various locations on the river between Dolores Ferry and just downstream of Laredo where rocks and rapids impeded passage in low water.¹²⁴ In particular, he noted the falls of the Rio Grande, “about two leagues below the Presidio del Río Grande,” where rocky ledges crossed the river in “oblique directions” with not more a foot of passage on the sides. He may also be the first person to have referred to the place “immediately below” the ledges, where the river was “turned into a variety of channels by a vast number of islands” as “Las Islitas.” At first, he admitted, his impression had been “extremely discouraging as to the practicability of its navigation.”¹²⁵ With the falls of the Rio Grande and Las Islitas posing the most obvious barrier to travel on the river, Egerton spent a day at Las Islitas with a local guide “in a laborious but interesting examination” of the feature. His survey allayed most of his concerns except “one comparatively trifling,—the only difficulty being to pass the great ledge.” Like others who came later, he optimistically claimed that “nature appear[ed] to have provided” a location that “might be cut through at an expense insignificant when compared with the advantages resulting from the opening of a free communication, *at all times*, between an extensive tract of country possessing *immense* capabilities and the port of Matamoros.” Beyond the “great ledge, deep

¹²¹ William H. Egerton, [*Important Report Just Received from the Government Surveyor for the Tracts of Land owned by the Rio Grande and Texas Land Co.*] (New York: Osborne and Buckingham, 1834), partially excerpted and quoted in Kennedy, *Texas*, 1:56, 77. Emphasis in original.

¹²² Egerton, quoted in Kennedy, *Texas*, 1:56.

¹²³ Egerton, quoted in Kennedy, *Texas*, 1:59.

¹²⁴ Egerton, quoted in Kennedy, *Texas*, 1:56.

¹²⁵ Egerton, quoted in Kennedy, *Texas*, 1:57.

water [was] at once found” in a channel that followed a “torturous route” with a strong but “not so impetuous” current through Las Islitas that avoided the “numerous minor ledges, which to a casual observer appear impassable.”¹²⁶ Furthermore, he claimed to know of “two moderate-sized flat boats” that managed to pass this section of river (from the rocky ledges through Las Islitas) and get to Matamoros during low water (Egerton provided no further explanation about where these boats were coming from or what if anything they carried).¹²⁷

Farther downriver, below Laredo, was another “great ledge” also traversing the Rio Grande on the diagonal. However, Egerton claimed, shallow-draft boats in “sufficient water” would be able to easily clear this obstacle. Egerton was confident that when the river was at a moderate height there was “no obstacle to its navigation” although “it would, perhaps, be advisable, at one or two places” to make minor modifications to ease passage during low water. The best way to travel upriver on the Rio Grande would be

by steam-boats carrying simply their machinery and fuel, and towing flat-keel boats. A commencement, at least, ought to be made in this way, and boats of a different description may afterwards be introduced, as experience dictated. It would be of great assistance, in ascending the river, if these boats were furnished with masts and upper sails, or what are called “flying topsails,” as the prevailing wind, all through the country, is from the south-east, and the average course of the river throughout is nearly north-west and south-east. Lower sails would be less useful, as the banks are in many places high, and others covered with trees.¹²⁸

He also reported that a steamboat had made it upriver “about 145 miles from Matamoros [*sic*], and had a full cargo down[river].” At high water,” he assured his readers, “there were no obstacles whatever.”¹²⁹

Whatever the obstacles to upriver travel might be, Egerton emphasized that the most important goal was “navigation *downward*, as a means of conveying the surplus produce” he imagined they would send to market. “This is not problematical,” he claimed, “for it *has already been done*.” Matamoros was a key destination, as the colonists could float produce downriver in flat boats that they could sell “for more than their cost” when they arrived.¹³⁰ If these steps were taken, Matamoros “in the course of no very considerable period, [would] become the New Orleans, and the Rio

¹²⁶ Egerton, quoted in Kennedy, *Texas*, 1:57. Emphasis in original.

¹²⁷ Egerton, quoted in Kennedy, *Texas*, 1:57.

¹²⁸ Egerton, quoted in Kennedy, *Texas*, 1:58–59.

¹²⁹ Egerton, quoted in Kennedy, *Texas*, 178.

¹³⁰ Egerton, quoted in Kennedy, *Texas*, 1:60. Emphasis in original.

Grande, the Mississippi, of this part of the world.”¹³¹ The implication was that Dolores would reap the benefits that accrued to towns on tributaries to the Mississippi. All that was needed was for the people to get there. Egerton’s report, devoid of credibility, set in motion a harrowing four-month journey both by sea and overland for fifty-nine colonists whose efforts ended in abysmal failure less than three months after they arrived in Dolores.¹³²

Egerton’s report also fueled the fire of people who were optimistic that the Rio Grande above and below Laredo could be used for regular commerce and transportation in the future. The next five investigations of the river, however, were firmly rooted in a sense of military necessity during and after the Mexican-American War.

4.3.3 *Major Brown, Fall 1846*

In 1844, the U.S. Senate received a “memoir” and map of Texas that Topographical Engineer William Emory (discussed more below) had authored and drawn. Emory reported that the Rio Grande had been “navigated by steamboats to Laredo” but that travel on the river was “difficult and dangerous.” Emory suggested that “engineering skill” could “make the river navigable for many hundred miles.”¹³³ By the start of the Mexican-American War in 1846, the parameters of steamboat travel on the lower Rio Grande were well defined. Common knowledge held that some “steamboats drawing five feet of water” and all “boats drawing three and a half and four feet” could ply “between the mouth of the Rio Grande and the town of Camargo, in Mexico, upriver from the Rio Grande on the right bank of the San Juan [River].”¹³⁴ Upstream from the mouth of the San Juan, collective wisdom considered steam travel on the Rio Grande “impracticable.” The “one exception, which occurred so long since as to have become either forgotten or misbelieved” seemed to prove the rule. Those who had attempted to ascend farther in the intervening years had “speedily returned, making adverse reports, each sustaining the assertions of the others.”¹³⁵ Still, in 1846, there was little solid evidence to go on and American leaders needed to understand the possibilities and realities of riverine travel beyond Camargo. Thus, hoping to establish a reliable route of military

¹³¹ Egerton, quoted in Kennedy, *Texas*, 1:57–58.

¹³² For more on the journey and fate of the Dolores colonists, see Egerton, quoted in Kennedy, *Texas*, 2:30–57.

¹³³ William H. Emory, “Memoir to Accompany the Map of Texas,” April 13, 1844, pp. 55–63, in “Presidential Message Communicating Treaty with Republic of Texas, and Documents Thereon, Injunction of Secrecy Having Been Removed,” S. Doc. 341, May 20, 1844, 28th Cong., 1st Sess., U.S. Congressional Serial Set, 1–120, quotation on 58.

¹³⁴ Tilden, *Notes on the Upper Rio Grande*, 7.

¹³⁵ Tilden, *Notes on the Upper Rio Grande*, 8. In the report’s December 1, 1846, dedication letter to Rackliffe, Tilden explained that “the expedition alluded to in the first part of my notes was Colonel Austin’s, which was undertaken some fourteen years since, when, with your assistance, acting as pilot, a steamboat drawing over five feet of water ascended the Rio Grande, to a point above the mouth of the Alcantro [*sic?*]” (*Notes on the Upper Rio Grande*, iv).

communications between Camargo and the Presidio del Río Grande, U.S. Army Major General Robert Patterson determined to undertake a survey of the river.¹³⁶ On October 1, 1846, Captain Mark Sterling, Lieutenant Bryant Tilden Jr. (the officer in charge of the exploration), nineteen privates, a noncommissioned officer, and additional crew boarded the U.S. steamer *Major Brown* with orders to proceed “nearly three hundred miles up the Río Grande”—farther if possible.¹³⁷ According to a later report by U.S. Boundary Commissioner John Bartlett, the *Major Brown* “drew but two feet of water.”¹³⁸ Tilden kept detailed notes and mapped the area they explored (Figure 6 through Figure 9; see also Map 2).

Almost immediately, the *Major Brown* had problems generating enough steam power to navigate. Between what Tilden referred to as “the Alcantro” (no extant place exists to correlate with this name, but Kingsbury depicted Río Alcantro at the location of the current Río Alamo on which sits the present-day town of Mier, Tamaulipas¹³⁹) and the Río Salado (twenty-five miles above present-day Roma), the crew had to stop the boat several times to get up “ample motive power in order to stem the current.” While the mesquite wood available to them did “pretty well in making steam,” the first lesson thus learned was that “no boat ought to attempt to run on the river without coal.”¹⁴⁰ With coal secured at Guerrero, Tamaulipas, the expedition proceeded with more reliable power but soon encountered a more daunting problem as the river turned into “a series of continued shoals, rocks, ripples, and rapids.”¹⁴¹ According to Tilden, they encountered “a few snags” on the way to Laredo that “scarcely need to be removed.”¹⁴² The principal issue, Tilden reported, was a “succession of reefs” with only a few narrow passages “of doubtful practicability” to steam navigation.¹⁴³ According to a later description, the boat “repeatedly grounded” along the way.¹⁴⁴ Despite these major obstacles, the *Major Brown* arrived in Laredo on October 24, 1846.¹⁴⁵

¹³⁶ Tilden, *Notes on the Upper Rio Grande*, 8.

¹³⁷ Tilden, *Notes on the Upper Rio Grande*, 8–9. An excerpt from the *U.S. Gazette* published with Tilden’s report says twenty noncommissioned officers joined Sterling and Tilden and that the total number on the boat was twenty (math that cannot be correct).

¹³⁸ Bartlett quoted in Davenport, “Notes on Early Steamboating,” 288.

¹³⁹ “Reconnaissance [*sic*] of the Rio Grande River, Made and Drawn by Daniel M. Kingsbury, by Order of Major W. W. Chapman, [Quartermaster], Rio Grande Frontier, during the Months of March and April 1949,” map, NARA Online. <https://catalog.archives.gov/id/353765506>.

¹⁴⁰ Tilden, *Notes on the Upper Rio Grande*, 12.

¹⁴¹ Tilden, *Notes on the Upper Rio Grande*, 13, 16.

¹⁴² Tilden, *Notes on the Upper Rio Grande*, 21.

¹⁴³ Tilden, *Notes on the Upper Rio Grande*, 21.

¹⁴⁴ Bartlett quoted in Davenport, “Notes on Early Steamboating,” 288.

¹⁴⁵ Tilden, *Notes on the Upper Rio Grande*, 22.

Proceeding upriver from Laredo on the *Major Brown* was “deemed inexpedient” as the river was falling unexpectedly.¹⁴⁶ Indeed, the vessel was “tied up” at Laredo due to low water for “several months.”¹⁴⁷ But a party of five, including two of the boat’s pilots, one engineer, guide and interpreter Alpheus Rackliffe (the longtime river captain), and a Mexican national, continued the journey on horseback in order to explore the river between Presidio del Río Grande (likely a reference to where the road to the presidio crossed the Rio Grande at Paso de Francia at the foot of the falls of the Rio Grande [Maps 2, 4, and 6]) and Laredo “in such a boat as they might be able to procure.”¹⁴⁸ After reaching Presidio del Río Grande overland and making their way back to the river, the only boat they could find was a cut up “dug-out” that had previously been sunk on the Texas side of the river. On November 4, with the vessel “patched and boarded until pronounced sea-worthy,” the party headed downstream. Tilden described the party’s wild ride through the falls of the Rio Grande at length and in illuminating detail.

Doctor White, and Mr. Misner, from the command at the crossing [likely the contingent Wool had left behind to guard the pontoon bridge], accompanied them in their dug-out to the first falls below, which were at that time only one or two feet in height, and at a distance of three or four miles from the Illinois and Arkansas camp.

From this point a succession of reefs and falls, of from two to three feet, occur at short intervals, for a distance of twenty miles. These reefs in many instances form solid walls from one island to another, the river widening to a breadth of more than a mile, containing in one group more than twenty islands. Several of these reefs were examined from one end to the other, and sounded near their coasts, in the hope of finding some opening, but to no purpose. The only method of passing with safety was, for every one to get out of the boat, and after heading her over a reef, to force her into the rapids beneath, hanging on to her sides, stem and stern, and then climbing in as she floated on below. This method . . . is not a very safe one to be generally followed. At a distance of more than fifty miles below Presidio, and on the Mexican side, a high rock rises vertically from the very water’s edge to a height of fifty feet, having an even surface. Close by are two rock islands, in midstream, which at high water cannot be covered. Rapids rushing with a tremendous velocity through the passage thus formed, render it doubtful, should any steamboat attain this point, whether it will be safe for it to attempt to pass down it in any stage of the river.¹⁴⁹

Farther downriver, about “fifteen or twenty miles above Laredo, there is a wide semicircular basin, almost wholly walled in by lofty vertical bluffs, where the river passes through a labyrinth of islands, shoals, rocks, reefs, and snags, sometimes in rapids, and sometimes in long shoots [*sic?*], varying in force with the different stages of the stream.” Although Tilden noted that Mexicans in flatboats

¹⁴⁶ Tilden, *Notes on the Upper Rio Grande*, 23.

¹⁴⁷ Bartlett quoted in Davenport, “Notes on Early Steamboating,” 288.

¹⁴⁸ “To Dr. A. Rackliffe,” December 1, 1846, in Tilden, *Notes on the Upper Rio Grande*, iii, also 24.

¹⁴⁹ Tilden, *Notes on the Upper Rio Grande*, 26–27.

(*chalanas*) were able to ascend through this feature, he believed that due to this obstacle to upriver passage, Laredo was “destined ultimately to become, and to continue for years, the head of navigation on the Rio Grande.”¹⁵⁰

Tilden optimistically reported that the narrow passages through these reef could easily be widened at the “comparatively slight expense” of a “hundred thousand dollars.”¹⁵¹ After spending that not-so-slight amount in improving the river above Mier, “boats drawing four feet” would have easy passage from the Gulf of Mexico to Laredo.¹⁵² His optimism did not seem to extend to expending such money for anything other than a strategic military need. Tilden was clearly skeptical about either the viability of regular travel on or the desirability of non-Indigenous settlement on the Rio Grande above Laredo. For one, aside from the Rio Grande itself, there was “not one constant stream” that flowed into the river on the Texas side. Additionally, few trees “suitable for heavy timber” existed on either side of the river. Accurately predicting that the Rio Grande would become the southern border of the United States, Tilden warned his readers that while people with money might see a return on speculative investment in the area, “the poor man who is induced to emigrate to this border will in all probability become still poorer than he was.” Whether he was aware of the abysmal failure of the Rio Grande and Texas Land Company colonists at Villa de Dolores who had faced similar hardships, Tilden’s assertion rang true that “no man can honestly invite the American emigrant hither.”¹⁵³ Although he did not state it outright, Tilden’s message seemed clear: the cost to open the Rio Grande for regular commerce and travel was likely not worth it.

¹⁵⁰ Tilden, *Notes on the Upper Rio Grande*, 29.

¹⁵¹ Tilden, *Notes on the Upper Rio Grande*, 21.

¹⁵² Tilden, *Notes on the Upper Rio Grande*, 23.

¹⁵³ Tilden, *Notes on the Upper Rio Grande*, 30, 31.

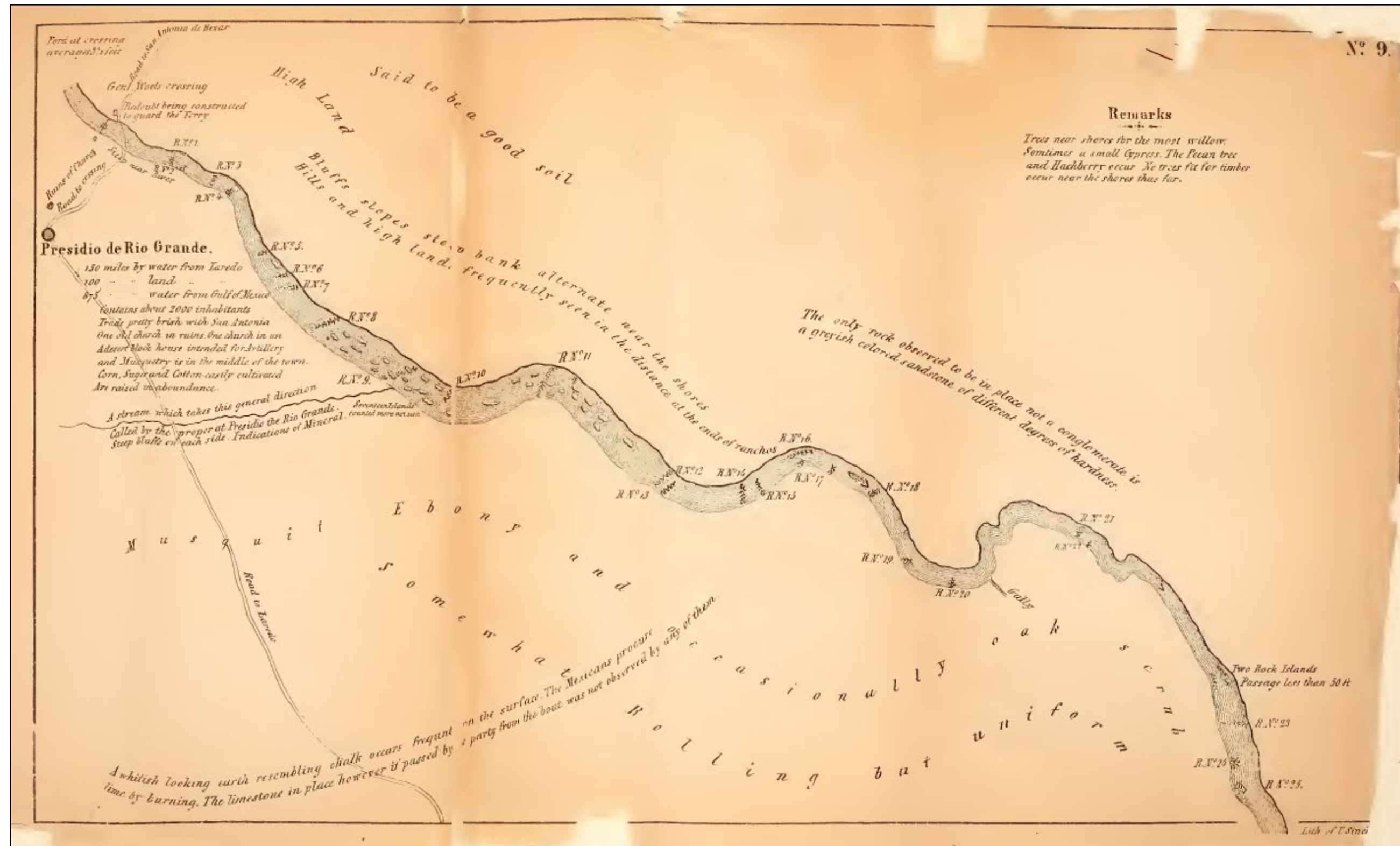


Figure 6. Rio Grande, at Presidio del Río Grande, and below, 1846. Source: Tilden, *Notes on the Upper Rio Grande*, Map No. 9.

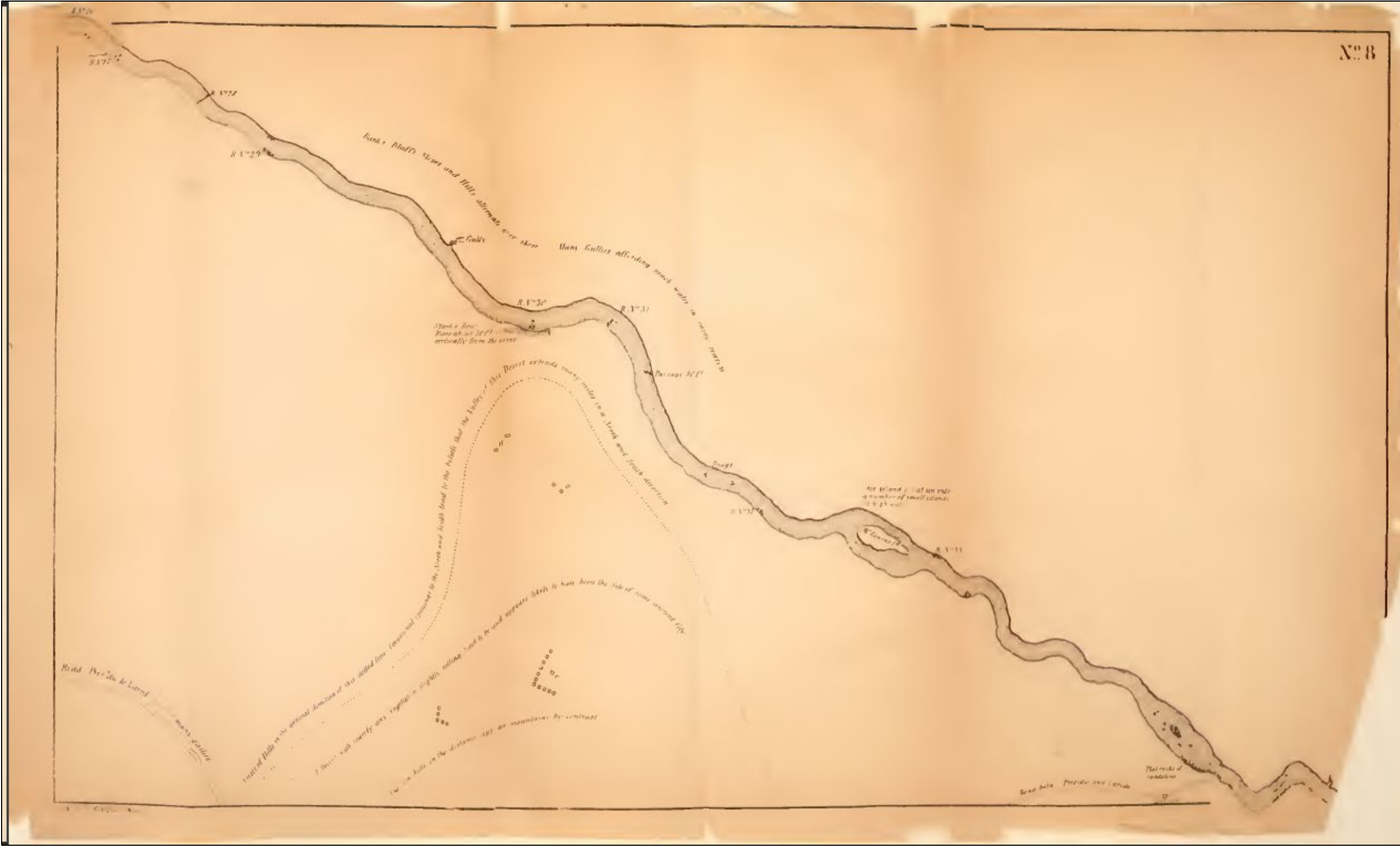


Figure 7. Rio Grande, between Presidio del Río Grande and Laredo, 1846. Source: Tilden, *Notes on the Upper Rio Grande*, Map No. 8.

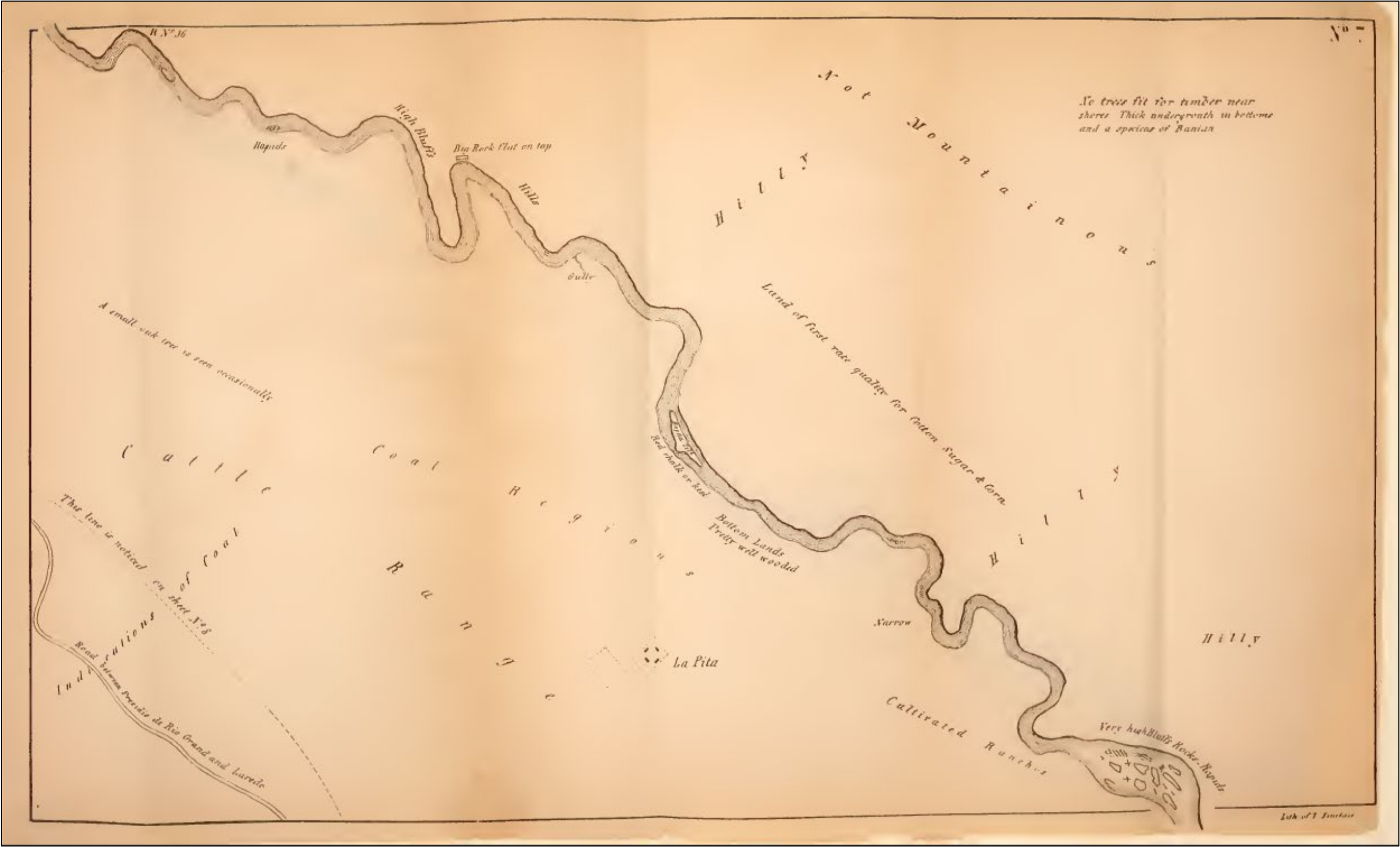


Figure 8. Rio Grande, between Presidio del Río Grande and Laredo, 1846. Source: Tilden, *Notes on the Upper Rio Grande*, Map No. 7.

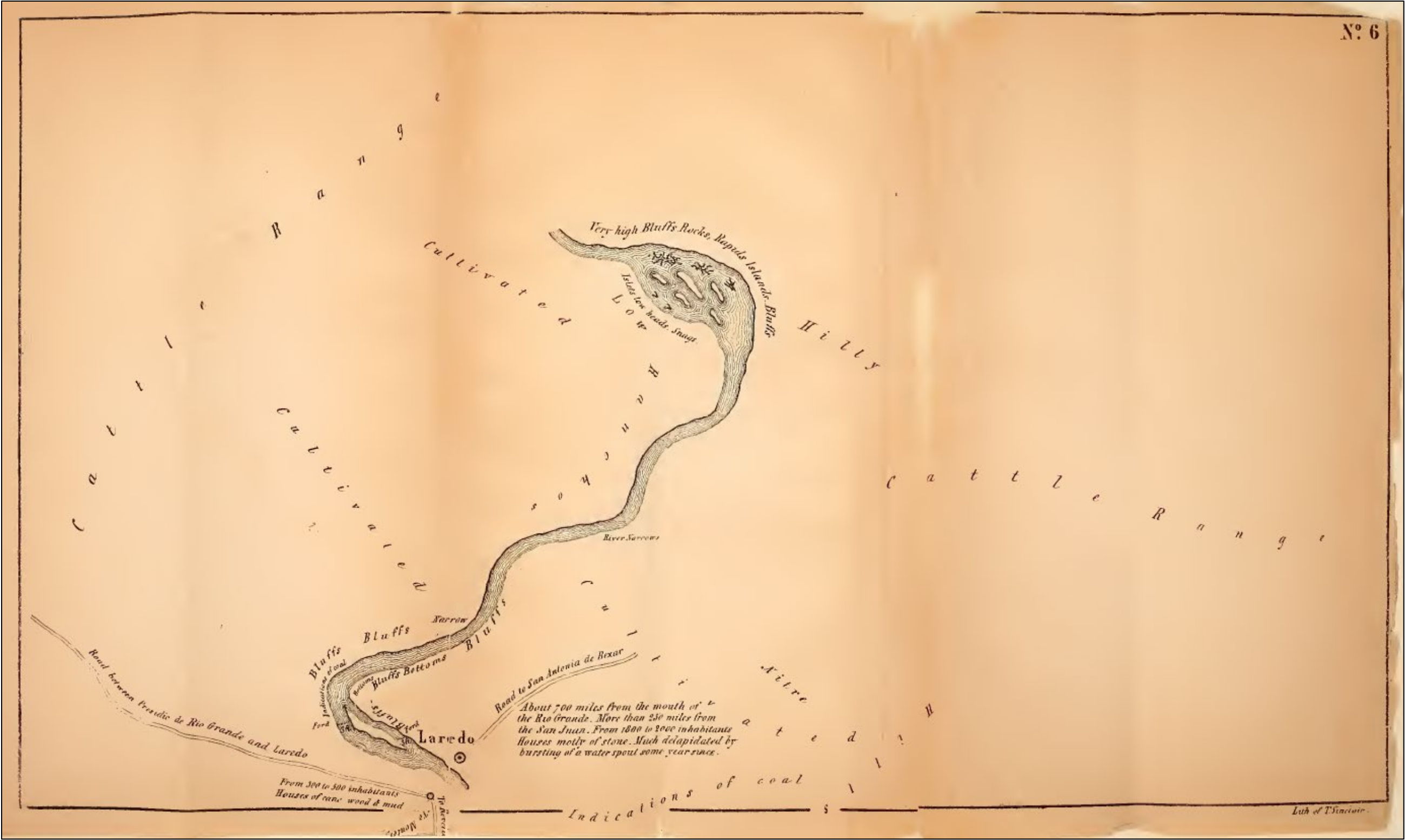
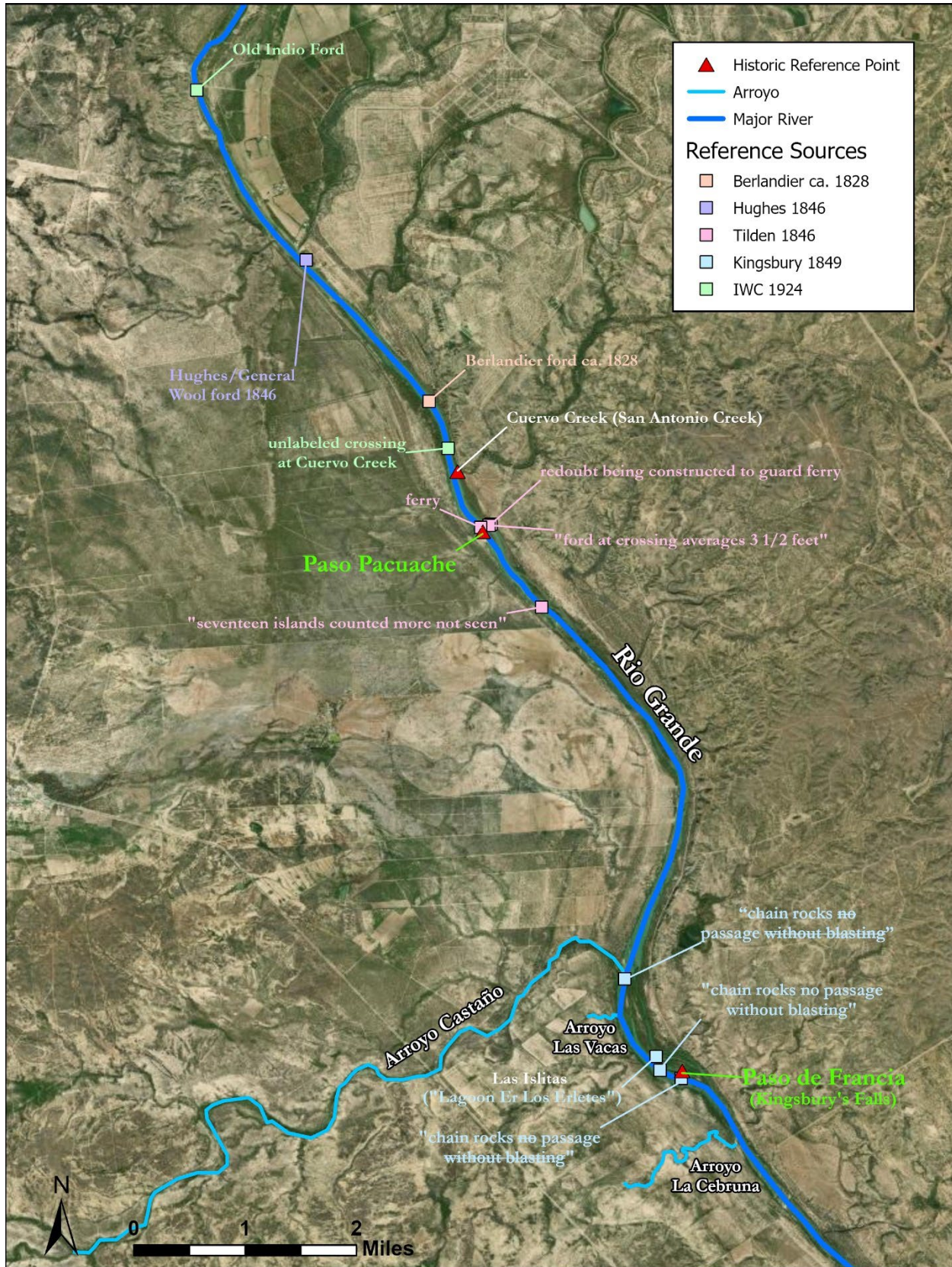


Figure 9. Rio Grande, between Presidio del Río Grande and Laredo, 1846. Source: Tilden, *Notes on the Upper Rio Grande*, Map No. 6.



Map 4

4.3.4 *Harry Love*, Spring and Fall 1849

In spring 1849, Brevet Major W. W. Chapman reported that the keelboat *Harry Love* had departed from Brazos Santiago on March 8 bound for Presidio de Rio Grande with quartermaster's stores.¹⁵⁴ On March 15, Chapman wrote to General Thomas S. Jesup, Quartermaster General, about the operation. After finding that the "surf boats" he had originally received for the voyage upriver "drew too much water," Chapman commissioned the construction of a more suitable boat. At 63 feet long and 14 feet wide, drawing "but 4 ½ inches light" and 12 inches when fully loaded, the *Harry Love* was embarking on the second U.S. Army expedition to survey the river between the lower river and Presidio del Río Grande.¹⁵⁵ The same day, Chapman wrote to Captain Daniel Kingsbury and directed him to board the "barge" at Camp Ringgold and load it with enough "subsistence stores" to sink the boat to twelve inches of water. The load needed to be precise, Chapman explained, to "assist the department in making future calculations." Kingsbury was to make his way to Laredo and then unload everything except thirty days of provisions for the crew. From there, Kingsbury would travel upriver to Presidio del Río Grande (presumably, the base of the falls where the Old Presidio Road crossed at Paso de Francia [Maps 2, 4, and 6]) or as close as he could get. If unable to reach that point on the river, Chapman directed Kingsbury to leave a guard with the boat and march the crew along the bank of the river.¹⁵⁶

The goal of the Kingsbury's journey on the *Harry Love* was "[to] make a minute and careful examination of the river from Camp Ringgold to Presidio del Río Grande, taking soundings, bearings, and distances," to create a topographical map, and to provide Chapman with "a full memoir of the reconnaissance." In addition to the "barge" (*Harry Love*), Kingsbury had a "yawl" to use after any point at which obstructions impeded the larger vessel from continuing. Kingsbury would then "ascertain the character of the obstructions" he encountered and estimate the level of effort and cost of removal. If river conditions required the crew to "march any distance," Chapman wanted details and an estimate of what it would cost to construct a wagon road.¹⁵⁷

¹⁵⁴ Major W. W. Chapman, Report of Arrivals and Departures of Vessels at Brazos-Santiago for March 1849, File: Brazos-Santiago 1849 (3), Box 200, Entry (NM-81) 225: CCF, RG 92, NARA-DC.

¹⁵⁵ Major W. W. Chapman to General T. S. Jesup, March 15, 1849, File: Brazos-Santiago 1849 (3), Box 200, Entry (NM-81) 225: CCF, RG 92, NARA-DC. Jesup has been referred to as the Father of the Modern Quartermaster Corps, serving as Quartermaster General for forty-two years. See "12th Quartermaster General, Brevet Major General Thomas S. Jesup," U.S. Army Quartermasters Corps website, updated December 13, 2023, https://quartermaster.army.mil/bios/previous-qm-generals/quartermaster-general_bio-jesup.html.

¹⁵⁶ Major W. W. Chapman to Capt. Kingsbury, March 15, 1849, File: Brazos-Santiago 1849 (3), Box 200, Entry (NM-81) 225: CCF, RG 92, NARA-DC.

¹⁵⁷ Chapman to Kingsbury, March 15, 1849.

Two months later, Kingsbury sent his report and map to Chapman (Figure 10 and Figure 11). He had left Camp Ringgold with a twelve-man crew and 101 barrels of stores and the *Harry Love* drawing eighteen inches. Why he deviated from Chapman's requested twelve inches is unknown, but as it turned out, the *Harry Love* had a deeper draft ("9 inches light, and 18 inches loaded") than the ship carpenter who built her originally promised. After offloading at Laredo and leaving for Presidio del Río Grande, the *Harry Love* was drawing ten inches and the river was rising, which made travel easy enough. On April 22, Kingsbury's voyage on the barge was "terminated" at the "Lagoon Er Los Erletes" (Las Islitas), a "wide expanse of water and the number of islands interspersed throughout it" (Map 6). With three of his crew, Kingsbury set out to investigate the falls (which Chapman later named after him). He reported that Mexicans along the way had "frequently informed" him that the falls presented the biggest barrier to passage between the Gulf and El Paso, and his own survey corroborated that "they truly presented a formidable barrier." Indeed, "it was utterly impossible to proceed any further" beyond the "solid mass" of rocks about 150 to 200 feet wide across the whole distance of the river and the falls that he estimated were between 3 and 4 feet high. Despite the size of the feature, he "made experiments under water in blasting and found the rocks very easily removed."¹⁵⁸ Kingsbury then tried to locate a portage on the Texas side but determined that the height of the bluffs made it impossible. At that point, Kingsbury traveled on foot to "the American Camp at Eagle Pass," via Presidio del Río Grande, returning along the river bank as best as he could.¹⁵⁹

¹⁵⁸ Capt. Daniel M. Kingsbury to Major W. W. Chapman, May 18, 1849, Folder: "Love, Harry" Keel Boat, Box 59: Logan (U.S.A.T.)—Maggie, Entry 1403: Vessel Files, 1834–1900, RG 92, NARA-DC.

¹⁵⁹ Kingsbury to Chapman, May 18, 1849.

Heather Lee Miller, PhD, Expert Report

Kingsbury believed that it was possible to blast a channel through Kingsbury's Falls that would allow a boat drawing twelve inches of water with a nine-person crew to "make the trip easily every six weeks the year round" between Camp Ringgold and Las Islitas. If these modifications could be made, he speculated, "an uninterrupted passage might be had for a long distance of the river." Additionally, he suggested that below the falls, there were "several places along the river [where] it would be prudent to remove portions of the rocks as the channel in most of these places is very narrow and intricate." Kingsbury hesitated to guess at the cost this kind of engineering might incur but felt that those costs "must be small when compared with the advantages to be derived from the navigation of the river."¹⁶⁰

Kingsbury was not the only person at the time who believed a channel through the falls could be opened. Captain Sidney Burbank, who had arrived as the first commander of Fort Duncan on March 27, 1849, reported to the commander of the Rio Grande District that it was "entirely practicable" to construct a road from Laredo to Eagle Pass, where he had been camped.¹⁶¹ In the same letter, Burbank noted (possibly erroneously) that he had been at Eagle Pass when "Chapman's boat arrived . . . without any difficulty."¹⁶² Burbank reported that in addition to believing boats could ascend as far as his post, he doubted whether there was "any serious obstacle far above that point, in the (passage) of the river in boats of small draft."¹⁶³ The falls also appeared to Kingsbury to be the only obstacle to hundreds of miles of riverine travel on the Rio Grande. Chapman conveyed Kingsbury's findings to Jesup, noting that Kingsbury (who had once been in an Army engineer)

¹⁶⁰ Kingsbury to Chapman, May 18, 1849.

¹⁶¹ Capt. S[idney] Burbank to Lieut. Col. [T.?] Morris, Commander Rio Grande District, April 19, 1849, handwritten copy by W. W. Chapman, File: "Love, Harry, Keel Boat," Box 59, Entry 1403: Vessel Files, 1834–1900, RG 92, NARA-DC.

¹⁶² Burbank to Morris, April 19, 1849. The Burbank letter is dated April 19, 1849, and Kingsbury reported they arrived on foot at the American Camp at Eagle Pass on April 23. A few possibilities exist to explain this anomaly. The date of Burbank's letter when he wrote it was an error, and he could have been exaggerating about Kingsbury arriving at Eagle Pass in a boat, knowing that the boat had made it to the falls but that Kingsbury thought it might be passable in the future; Chapman could have transcribed the wrong date when he copied Burbank's letter not knowing that the boat had never arrived; or Chapman could have added the language about the boat himself for some reason (the reference to "Chapman's boat" seems odd). The latter is an intriguing theory given Chapman's complicated relationship as a government employee with a vested commercial interest in the river. He may have hoped the military would pay to make the river passable at Kingsbury's Falls with his own financial gain in mind. The fact that he neglected to tell Jesup that a boat had reached Fort Duncan begs the question. See Bvt. Maj. W. W. Chapman to Major General T. S. Jesup, Quartermaster General, May 16, 1849, File: "Love, Harry, Keel Boat," Box 59, Entry 1403: Vessel Files, 1834–1900, RG 92, NARA-DC. (Note that Chapman's report to Jesup about the voyage was dated two days before Kingsbury's report to Chapman, indicating that Kingsbury had authored another report that historians have not yet found or conveyed the information verbally before submitting his findings in writing.)

¹⁶³ Burbank to Morris, April 19, 1849.

believed “he, with 10 laborers could blast a channel through them for the ‘Harry Love’ in one month.”¹⁶⁴

Fortunately, Chapman, reported the Rio Grande had been “unusually low” during Kingsbury’s journey—“a favorable time for making the experiment”—and he thought if the water had been higher, “he could have gone to the falls with his entire cargo.” Still, Kingsbury had suggested that the best boats for the river would be shorter, lighter, and “nearly flat,” drawing no more than twelve inches loaded. Under these conditions, Chapman assured Jesup that two or three boats could “keep the garrisons of Laredo and Eagle Pass supplied.” Despite the optimism, Kingsbury made clear that Fort Duncan should be moved to a “more desirable” site than Eagle Pass. Locating the post below the falls would eliminate the need to engineer a channel through the rocks unless the Army built additional posts between the falls and El Paso and expected to supply them via the Rio Grande.¹⁶⁵

A few months later, Chapman wrote to Colonel Hunt in New Orleans that if the post at Eagle Pass was moved to “where it should be, at the foot of ‘Kingsbury’s Falls,’” keelboats could supply it. Chapman remained insistent that supplying the military by the river was far safer than Hunt’s decision to transport supplies overland. “The roads would be impassable a portion of the year,” Chapman warned, “the rains long and heavy; the Comanches and Lipans numerous where there is any plunder to be had; and the probability is that such stores, (packed most likely in scantily covered Mexican carts) as would not be ruined by the rains, would be captured by the Indians.” Hunt could not only avoid taking such a risk but also decrease costs, Chapman argued, by allowing him to “make a contract, at a much lower price . . . with a very responsible steamboat line” owned in part by Charles Stillman and Samuel Belden.¹⁶⁶

By fall 1849, Chapman was trying to develop the Rio Grande as the primary means of transporting military goods to the forts along the river. In October, he informed Jesup that the *Harry Love* had again ascended the Rio Grande, this time making it to Eagle Pass. With the river “a trifle

¹⁶⁴ Bvt. Maj. W. W. Chapman to T. S. Jesup, Quartermaster General, May 16, 1849, File: “Love, Harry, Keel Boat,” Box 59, Entry 1403: Vessel Files, 1834–1900, RG 92, NARA-DC. I was unable to find any evidence of when or how Kingsbury conveyed these numbers to Chapman. He likely wrote a separate missive or conveyed his estimate verbally after refusing to hazard a guess in his May 18, 1849, letter. He apparently set the estimated cost at \$500, which Chapman quoted in his report about the Major Babbitt expedition the next year. See Bvt. Major W. W. Chapman to General T. Jesup, Quartermaster General, September 5, 1850, in *Annual Report of the Quartermaster General, Fiscal Year Ending June 30, 1850* (Washington: C. Alexander, 1851), 209–14, 211.

¹⁶⁵ Chapman to Jesup, May 16, 1849.

¹⁶⁶ Major W. W. Chapman to Col. [T. J.] Hunt, June 15, 1849, Folder File: “Brasos-Santiago (184, 9) (4), Box 200, Entry (NM-81) 225: CCF, RG 92, NARA-DC.

higher” than on the first “experimental trip,” the crew had hauled the boat over Kingsbury’s Falls “without any difficulty.”¹⁶⁷ Chapman did not name the captain of this voyage, but Captain Henry (Harry) Love, who conducted future trips up the river, was likely onboard if not in command.¹⁶⁸ Based on information from Love and an unidentified U.S. Army Capt. Eastman, Chapman once again asserted his confidence in the ability of “keel boats drawing from 12 to 18 inches of water” to come within 150 miles of El Paso “at all seasons of the year.” Hopeful, Chapman informed Jesup that he was having two new keelboats around the same size as the *Harry Love* built at Brazos Santiago for this purpose.¹⁶⁹ His expectation was that the expense of the keelboats would be outweighed by the benefit of shaving 650 miles off the current land route. Chapman was so invested in the imagined outcome of the journey that he offered to “make the experimental trip” himself and “furnish a detailed report.”¹⁷⁰

By early 1850, the new keelboats were almost ready. Chapman reported to Chief Quartermaster Major Edmund Babbitt on January 24 that “as soon as the smaller one is ready,” Captain Love would try to “ascend the Rio Grande to the highest possible point.” Chapman had named this “*pioneer* boat,” the *Major Babbitt*. Chapman had more than military expediency in mind. As he told Babbitt, his true goal was “opening this rich and beautiful valley, and giving pastoral and farming employment to an immense number of settlers,” who he was sure would “flock there” once regular riverine travel was established.¹⁷¹ Chapman was also unsure whether the essential work was yet underway to remove Kingsbury’s Falls. Although he intended to put the larger of the new keelboats into service alongside the *Harry Love* between Ringold Barracks and Eagle Pass, he hoped “the Engineers have cut the channel through the falls below Presidio [*sic*] Rio Grande, as we shall have much difficulty in hauling the boats over them during low water, and at all times, with full loads.”¹⁷² He speculated that with some repairs the larger steamer, *Major Brown*, might also be put into service between Ringgold and Eagle Pass, or beyond.¹⁷³ Once again, Chapman hoped that

¹⁶⁷ Bvt. Major W. W. Chapman to Maj. General T. S. Jesup, October 30, 1849, File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: CCF, RG 92, NARA-DC.

¹⁶⁸ Although I have found no historical evidence to prove it, one presumes the *Harry Love* was named after Captain Henry Love, who was operating on the river around this time.

¹⁶⁹ “One will be 75 feet long, 16 feet wide, will draw 12 inches of water, and carry 150 barrels. The other will be 60 feet long, 13 feet wide, will draw 9 inches of water, and carry 75 barrels” (Chapman to Jesup, October 30, 1849). The identity of Eastman is unclear. Kelley referred to someone named “Captain Easterly” in the same context (*River of Lost Dreams*, 49).

¹⁷⁰ Chapman to Jesup, October 30, 1849.

¹⁷¹ Bvt. Major W. W. Chapman to Major E. B. Babbitt, Chief Quartermaster, 8th Dept., January 24, 1850, 2–3, File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: CCF, RG 92, NARA-DC. Emphasis in original.

¹⁷² Chapman to Babbitt, January 24, 1850, 3–4.

¹⁷³ Chapman to Babbitt, January 24, 1850, 6.

riverine transport could eliminate all or part of the “27 six mule trains and wagons” then needed to supply Fort Duncan from Ringgold Barracks.¹⁷⁴ Chapman’s ultimate goal, however, was to establish a fleet of a “light class of iron steamboats” like the *Major Brown* that would replace the keelboats.¹⁷⁵

4.3.5 *Major Babbitt*, Spring 1850

On March 11, 1850, Captain Love set out from Ringgold Barracks on the *Major Babbitt* with thirteen crew, supplies, arms, and ammunition (Figure 12).¹⁷⁶ The expedition returned exactly five months later on August 11.¹⁷⁷ Chapman’s report of the journey found national coverage. His September 5 report to General Jesup was reprinted not only in the quartermaster’s annual report but also in newspapers and other publications from Texas to New York, raising awareness outside Texas of the hoped-for potential the Rio Grande had for regular travel.¹⁷⁸



Figure 12. Artists’ rendition of the *Major Babbitt*. Source: Walter, “Love on the Rio Grande,” 38.

¹⁷⁴ Chapman to Babbitt, January 24, 1850, 6, quotation on 4.

¹⁷⁵ Chapman to Babbitt, January 24, 1850, 6.

¹⁷⁶ According to historian Matt Walter, Col. M. L. Crimmins who wrote about the expedition in 1933, misidentified the captain of this trip as another Army officer, John Love. See Matt Walter, “Love on the Rio Grande: The 1850 Exploration by Captain Love,” *Journal of Big Bend Studies* 19 (2007): 35-45; and Crimmins, “Two Thousand Miles by Boat in the Rio Grande in 1850,” *West Texas Historical and Scientific Society Bulletin*, no. 48 (December 1, 1933): 44–52.

¹⁷⁷ Chapman to Jesup, September 5, 1850, 209–10.

¹⁷⁸ For example, W. W. Chapman, “Exploration of the Rio Grande,” *Texas Monument* (La Grange), January 15, 1851; and *The Coast Depot and Shipping Port of the Valley of the Rio-Grande the Provinces of Mexico Tributary Thereto: With the Government Map of That Region of Country, Published in 1850* (New York: Pudney & Russell, 1850), 14–23. According to the first page of the *Coast Depot* recounting, *The Republic* (Washington, DC), *New York Tribune*, and *Commercial Advertiser* had published the report. I was unable to find the map reportedly published in either the *Annual Report of the Quartermaster General, Fiscal Year Ending June 30, 1850*, or *Coast Depot*.

At fifty feet long and sixteen feet wide, and drawing eighteen inches of water fully loaded, the *Major Babbitt* was ten feet shorter, three feet wider, and drew double the water Chapman originally described. Love took the keelboat on a military expedition approximately 967 miles above Ringgold Barracks where an “impassable” feature he named Brooke’s Falls ended the *Major Babbitt*’s progress. At this point, the crew left the keelboat, portaged around the falls, and rowed a skiff upriver for another 47 miles to a feature he named Babbitt’s Falls, about 150 land miles from El Paso, before returning downriver. Chapman claimed that during the expedition, the Rio Grande had been lower than “known for several years,” making it a “most favorable season” to show the “practicality of navigation” on the river in all conditions.¹⁷⁹

Love’s journey supported the findings of the journeys that preceded his on the *Major Babbitt*. In his estimation, larger steamboats would be able to navigate as far as Kingsbury’s Falls from June to November and smaller ones (preferably constructed of iron and able to tow keelboats) year-round. Love thought that the river between Ringgold Barracks and Kingsbury’s Falls could be expanded—at an estimated costs of \$10,000—to allow steamboats the size of the *Corvette* and *Major Brown* (more than double the size of *Major Babbitt* or *Harry Love*) to reach Kingsbury’s Falls. Chapman believed it would cost two or three times as much.¹⁸⁰

As for Kingsbury’s Falls, although the *Harry Love* and the *Major Babbitt* had “been hauled over them with much difficulty,” they “entirely obstruct[ed] the navigation of the river for steamboats.” Still, Love (and Chapman) believed it was possible to cut a channel through the falls’ soft limestone, which he characterized as “easily removed with a crowbar,” for either \$3,000 (to allow the larger steamboats) or Kingsbury’s earlier estimate of \$500 (for the smaller keelboats).¹⁸¹ Ultimately, the proposed modifications hopefully would extend “the head of steamboat navigation” from Ringgold Barracks to Devil’s River, after which keelboats could navigate “with some difficulty” approximately another 283 miles. More important, Chapman once again argued, boats could supply Fort Duncan more cheaply than costly wagon trains as well as opening up the river to “a little town [that was] springing up just below Fort Duncan”—in all likelihood a reference to the trading post at Paso de Águila that would some move two miles north to become present-day Eagle Pass—that he believed would “become one of considerable commercial importance” (Maps 2, 3, and 5).¹⁸²

¹⁷⁹ Chapman to Jesup, September 5, 1850, 209–10.

¹⁸⁰ Chapman to Jesup, September 5, 1850, 210–11.

¹⁸¹ Chapman to Jesup, September 5, 1850, 210–11.

¹⁸² Chapman to Jesup, September 5, 1850, 211–12.

Ultimately, although Eagle Pass–Piedras Negras did become important border cities, it had nothing to do with a highway of commerce on the Rio Grande in the vicinity of those two towns.

One of Eagle Pass’s first residents, Jane Cazneau, propounded the idea that the Rio Grande could and should be engineered to allow regular river travel from the lower Rio Grande to Eagle Pass and beyond. Indeed, she reported meeting Henry (Harry) Love on his second 1850 expedition up the river. In a section entitled “Navigating the Bravo,” Cazneau scoffed at “some wiseacres” who were “positively certain that the Rio Grande [was] not navigable,” noting that of the “three [*sic*] efforts to test this, every one was successful.”¹⁸³ Her statement that “a strong, suitably constructed, iron steamer could force its way when a channel is cleared” through Las Islitas was based on a report (quite possibly Tilden’s), “which has been on record in the War Department already nearly two years without action, [and] states unequivocally that a channel can be made for a small steamer for fifty thousand dollars.” She passionately believed that “contractors could probably be found . . . to execute the work” that “would open to steam navigation one thousand miles of this boundary river.” Although “the boats would be small, . . . they could carry each a gun or two, and transport troops with activity from point to point, to meet, drive back, and effectually overawe, the wandering tribes of savages who now baffle and set at derision our slow, and always after-time, pursuits.”¹⁸⁴ Cazneau’s call for “the government” to place \$100,000 “at the disposal of the Secretary of War . . . for the purpose of opening the channel of the river” in order to facilitate increased settlement of the area apparently went unheard.¹⁸⁵

Cazneau and her husband were likely among the very first non-Indigenous residents of the area. They arrived around 1848 to partner with the man who opened the first trading post at the initial location of Camp Eagle Pass at Paso de Águila (Map 3). One historian has explained Cazneau’s glowing account of Eagle Pass as less a “willful distortion of reality” than a “reflection of her hopes and expectations for the community.” “Like most Young Americans,” Cazneau “was an optimist of the highest order.” In many ways, her cheerful outlook toward the town that Frederick Law Olmsted, who visited the town in 1854, described in far less glowing terms, was like the optimism that men like Berlandier, Beales, Egerton, Tilden, Love, Chapman, Emory, Kenedy, and others brought to the Texas/Mexico frontier. They all believed that American ingenuity,

¹⁸³ Cora Montgomery [Jane McManus Cazneau], *Eagle Pass; Or, Life on the Border* (New York: George Putnam & Co., 1852), 177.

¹⁸⁴ Montgomery, *Eagle Pass*, 178.

¹⁸⁵ Montgomery, *Eagle Pass*, 178–79.

engineering, and institutions backed by U.S. government funds “would transform Eagle Pass [and other towns on the border] into a prosperous, settled republican community.”¹⁸⁶ Despite her enthusiasm for the project, Cazneau soon left Eagle Pass, never to return.

Despite Chapman’s enthusiasm for opening the Rio Grande as a riverine supply route to military posts above Kingsbury’s Falls, his efforts bore no fruit with the military. Less than a year after reporting on the 1850 *Major Babbitt* expedition, Chapman seemed resigned to the fact that the U.S. Army was not interested in spending the money needed to remove the many obstacles that peppered hundreds of miles of the Rio Grande above Ringgold Barracks and blast a channel through the impassable Kingsbury’s Falls. In summer 1851, Chapman was instead considering whether he could supply the “upper posts . . . more cheaply from another depot” and working to sell government steamboats and contract with private operators to move supplies—an effort Jesup seemed to support.¹⁸⁷ Chapman refocused his efforts on consolidating and promoting the use of steamboat for commerce and transportation on the lower Rio Grande. He advocated that the government use the services of the “responsible, reliable” Kenedy and “O’Daniel,” who owned the sternwheeler *Comanche* and sidewheeler *Grampus* both built in 1850 in Pennsylvania.¹⁸⁸ Not only were Kenedy and O’Daniel’s prices “fair and reasonable” but they also owned “the only good boats” operating on the river.¹⁸⁹ Later that year, Chapman reported that he was using the steamboats *Mentonia* and *Corvette* to convey supplies from Brazos Santiago to Fort Brown and Ringgold Barracks. Wagons and keelboats transported supplies from Ringgold Barracks to Laredo, from where wagons made the final leg to Eagle Pass.¹⁹⁰ By early 1852, the U.S. Army was apparently no longer running its own vessels on the lower Rio Grande—at least not from Brazos Santiago. On February 10, Chapman “discharged” all steamboat crew and associated employees (except four soldiers to stand guard at the river mouth) from duty at the post.¹⁹¹

¹⁸⁶ William T. Kerrigan, “Race, Expansion, and Slavery in Eagle Pass, Texas, 1852,” *Southwestern Historical Quarterly* 101, no. 3 (January 1998): 275–301, quotations on 288.

¹⁸⁷ Bvt. Major W. W. Chapman to General Jesup, Quartermaster General, June 17, 1851, File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: CCF, RG 92, NARA-DC.

¹⁸⁸ Chapman to Jesup, June 17, 1851. Kelley’s noted no one with this name associated in his steamboat owner/operator list; M. Kenedy & Co. owned the *Comanche* and Kenedy and King owned the *Grampus* (*River of Lost Dreams*, Appendix 1).

¹⁸⁹ Chapman to Jesup, June 17, 1851.

¹⁹⁰ Bvt. Major W. W. Chapman to General Whiting, A. Quartermaster General, July 22, 1851, 2, File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: CCF, RG 92, NARA-DC.

¹⁹¹ Bvt. Maj. W. W. Chapman to Maj. General George Gibson, February 10, 1852, File: “Brazos-Santiago 1852,” Box 200, Entry (NM-81) 225: CCF, 1794-1915, RG 92, NARA-DC.

Research revealed no historical evidence to show that the Army continued to discuss opening the Rio Grande and using boats to supply posts above Laredo after Chapman discharged the steamboat personnel at Brazos Santiago in 1852. Indeed, quartermasters' reports from 1860 and 1861 recorded no type of watercraft or associated materiel at either Fort Duncan on the Rio Grande or Camp Hudson, which was situated on a tributary of Devil's River. These posts were well staffed and presumably, the quartermaster would have listed a boat if one existed on base.¹⁹² Quartermasters filled out Form No. 5, "monthly return of public animals, wagons, harness, and other means of transportation" at each base. In addition to horses, mules, oxen, wagons, ambulances, carts, harnesses, bridles, and saddles, the form had columns for ships, schooners, sloops, steamers, boats and barges, and skiffs and bateaux. At both locations, mules and wagons predominated; no boats were recorded.¹⁹³ None of the personnel whom the quartermasters at these posts recorded on Form 3, as being "employed on extra duty as mechanics and laborers" indicated that any of the men worked on boats or around the rivers. In June 1860, for example, three of the eight men hired out at Camp Hudson worked "driving a public team," one repaired buildings and wagons, and two herded "public animals."¹⁹⁴

4.3.6 Joint U.S. and Mexico Boundary Commission Survey, 1852-1853

The last large-scale investigation of the Rio Grande occurred following the 1848 Treaty of Guadalupe Hidalgo. The Joint U.S. and Mexico Boundary Commission first surveyed the boundary between California and Baja California before turning to the Texas boundary, starting at El Paso in November 1850.¹⁹⁵ After a year of delays and \$500,000 spent with very little to show for it,

¹⁹² An April 1861 report listed fifty-two officers and men at Camp Hudson and sixty-five at Fort Duncan; however, another account stated that federal troops at Fort Duncan evacuated the post on orders they received January 31, 1861. I cannot account for the discrepancy but assume this is a fair estimate of the general size of these posts. Compare Lorenzo Thomas to Simon Cameron, April 5, 1861, Report on Strength and Placement of U.S. Army (Abraham Lincoln Papers: Series 1, General Correspondence, 1833–1916, Library of Congress, retrieved May 21, 2024, <https://www.loc.gov/resource/mal.0881800/?sp=3&st=image&r=-0.833,-0.012,2.667,1.769,0>) with Kinsall, *Fort Duncan*.

¹⁹³ For example, Abstract of Articles Transferred to 1st Lt P. W. Alley [?] 3rd Infantry a. a. 2 PM at Brownsville Texas in the Quarter Ending on the 31st March 1861 [Form No. 5], Packet No. 8, Folder: Miscellaneous Papers, Box 2H431, Fort Duncan Collection, UTA; and Brvt. Maj. Larkin Smith, Camp Hudson, Texas, Monthly Return of Public Animals, Wagons, Harness, and Other Means of Transportation in Possession of, [Form] No. 5, April 1860, June 1860, July 1860, August 1860, October 1860, and November 1860, all in Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center, UTA.

¹⁹⁴ Brvt. Maj. Larkin Smith, Camp Hudson, Texas, Roll of Noncommissioned Officers and Privates Employed on Extra Duty as Mechanics and Laborers, [Form] No. 3, June 1860; see also May 1860 and November 1860, all in Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center, UTA.

¹⁹⁵ Joseph Richard Werne, "Surveying the Rio Grande, 1850–1853," *Southwestern Historical Quarterly* 94, no. 4 (April 1991): 535–54, esp. 535–56.

Topographical Engineer Major William Emory was named U.S. surveyor and astronomer for the survey in November 1851.¹⁹⁶ Emory and his staff surveyed much of the river, including the vicinity of Eagle Pass–Piedras Negras, between 1852 and 1853. On August 15, 1856, Emory presented his long-awaited report to the U.S. House of Representatives; the published version, which included additional reports by Lieutenant Nathaniel Michler and assistant surveyor Marine T. W. Chandler, came out in 1857.

From the outset, Emory's work was hampered by the continued absence of U.S. Commissioner John Bartlett, which resulted in a lack of funds or credit for the party. The surveyor suffered with meager supplies and inadequate equipment while encountering tortuous terrain and an unruly river.¹⁹⁷ While he worked west from El Paso, Emory tasked Michler with investigating the Rio Grande between Eagle Pass and Ringgold Barracks and Chandler with surveying the Rio Grande between El Paso and Eagle Pass.¹⁹⁸ Michler made it as far as Laredo before Emory commanded him to “turn his party around and push the survey upriver.”¹⁹⁹ By June 1852, Michler's group was surveying above Eagle Pass, having been directed to survey the segment from San Vicente in the Big Bend area to Devil's River that Chandler had been unable to complete. While most of the travel associated with the various boundary surveys was overland by wagon (accessing the river at various points), in some sections this could take “an interminable length of time,” requiring some sections to be floated. Michler's party had three boats they had been carting via wagon for this purpose: two “frail” skiffs and an “unwieldy and unmanageable” flatboat.²⁰⁰ They entered the river near a feature Emory called Lipan Crossing, eighty-five miles above the mouth of the Pecos, descended to Eagle Pass (flanked by the land party), and regrouped at Fort Duncan.²⁰¹

Chandler and his men endured a series of unfortunate events on the river and ongoing lack of sufficient food or water during Chandler's “heroic effort” to complete his part of the survey. Spent, he called off the river survey and marched overland to Fort Duncan with Lieutenant Duff Green, who had been following on land along with the men on the river.²⁰² Chandler and Green arrived on November 24, 1852. Ten days earlier, Boundary Commission laborer Charles Abbott and “several other men” (presumably, working under Michler) had taken an “exhilarating ten-day trip” in

¹⁹⁶ Werne, “Surveying the Rio Grande,” 539.

¹⁹⁷ Werne, “Surveying the Rio Grande,” 540–41.

¹⁹⁸ Werne, “Surveying the Rio Grande,” 544.

¹⁹⁹ Werne, “Surveying the Rio Grande,” 544.

²⁰⁰ Lieutenant Nathaniel Michler to William Emory, March 10, 1856, in Emory, *Report*, 74–80, esp. 77. See also Werne, “Surveying the Rio Grande,” 544.

²⁰¹ Michler to Emory, March 10, 1856, in Emory, *Report*, 75, 77–79.

²⁰² Werne, “Surveying the Rio Grande,” 541–43, quotation on 541.

an “India-rubber boat” downriver from Eagle Pass, during which Abbott took notes and drew a rough map of what he had seen, giving Emory and his engineers a sense of what lay below Eagle Pass.²⁰³

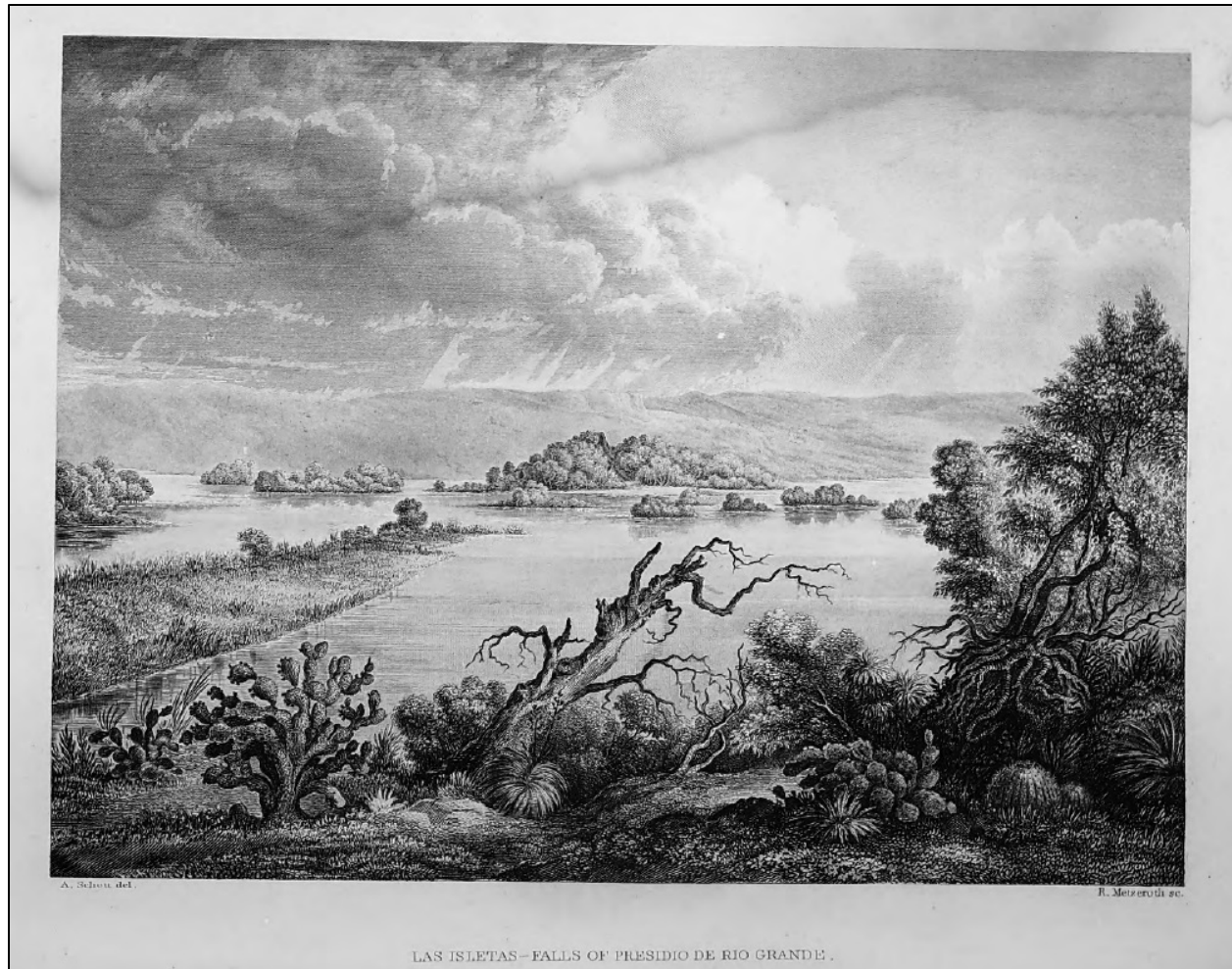


Figure 13. “Las Isletas—Falls of the Presidio de Rio Grande,” ca. 1852–1853. Source: Emory, *Report*, plate between 68 and 69.

Emory detailed many obstructions in the Rio Grande, especially in the segment of the river between RM 275.5 and 610. He cited the field notes of a “Mr. Schott,” noting reefs that crossed the river like “steps, one above the other” that were bare in during dry seasons. Between Eagle Pass and Isletas, Schott described numerous “‘the snares,’ ‘the meshes,’ ‘stone turtles,’ . . . [and] ‘Devil’s pen.’”²⁰⁴ Forty miles below Eagle Pass, the falls of the Rio Grande or Isletas/Isletas (Figure 13) were

²⁰³ Werne, “Surveying the Rio Grande,” 543–44, quotations on 543, 544, respectively. Werne also described the Abbott party as having taken “the best of the boats” (543), which seems contradictory, but perhaps that was the best they had after months of survey?

²⁰⁴ Emory, *Report*, 71.

“impassable, even in small boats, except in the summer months, when the river is swollen by the tropical rains.”²⁰⁵ In addition to Islitas, numerous rocky obstructions could be found all the way to Roma (at RM 255), which Emory called the “present head of steamboat navigation.”²⁰⁶ Above Bellville (present-day Zapata, Texas, across from the mouth of the Rio Salado), the obstructions were of an increasingly “rocky character” and would be “difficult to remove.” In addition to six islands was a “formidable obstruction . . . formed by two reefs running in from the opposite sides, and overreaching each other, thus leaving but a crooked channel, through which the river passes at the rate of five miles per hour.” The wreck of the steamer *Exchange* was still visible at this location. The Heron Islands, Cazneau Island, Chess-Board Island, and Islitas dotted the river above Laredo. In addition to Islitas, which was “the most formidable,” “the worst” of the islands upriver from Laredo were Islands 25 and 30. Island 25 was often called Major Brown’s Island after the *Major Brown* got stuck there “a whole season waiting for a rise of water.” Island No. 30 was really a group of small islands, “at the foot of which the channel is only eleven or twelve feet wide.”²⁰⁷ Despite the laundry list of obstacles impeding regular river travel below Eagle Pass, Emory echoed the optimistic reports of Bradburn and Staples, and Love and Chapman before him, noting, “at some distant day, no doubt, the navigation will be extended up as high as the mouth of Devil’s River.” Since most of the rocks were “sedimentary rocks of the upper cretaceous age, lying in horizontal strata,” he believed they “would yield easily to the pick.” Still, Emory did not venture to guess “how far it would be prudent to resort to cutting away these natural dams,” leaving the matter as a future “subject of investigation for each locality.”²⁰⁸ The “distant day” Emory envisioned never arrived.

Discussions about whether boats could travel upstream and downstream on the Rio Grande past Roma or Laredo continued throughout the nineteenth century even as water levels in the river continued to decline, but none of the speculative proposals to blast, pick, or otherwise remove barriers in the river ever happened. In 1875 and 1876, the U.S. Navy was investigating whether the Rio Grande could be of any use in tracking and catching cattle thieves, and if so, “the character of the vessels best adapted for the purpose.”²⁰⁹ The report did not state how far upriver the Navy was considering launching patrol vessels but noted that cattle stealing was “going on along this frontier

²⁰⁵ Emory, *Report*, 68.

²⁰⁶ Emory, *Report*, 63, 70.

²⁰⁷ Emory, *Report*, 71.

²⁰⁸ Emory, *Report*, 70–71.

²⁰⁹ Geo. [C.?] Remey to Secretary of the Navy, November 19, 1875, 2, Vol. 1, E. (I-18) 482: Letters Sent by Officers Commanding Naval Forces in Rio Grande, RG 45: Naval Records Collection of the Office of Naval Records and Library (RG 45), NARA-DC.

at all times.”²¹⁰ Since its founding, Eagle Pass has had a strong history of ranching, but whether the Navy was looking to head off cattle poaching that far upriver is unknown.²¹¹ Likely, their focus was on the remaining cattle ranches flanking much of the lower Rio Grande since the mid-eighteenth century, when Escandón established the *villas del norte* and associated ranches.²¹² George Remy wrote pessimistically to the secretary of the Navy on November 19, 1875, about the matter, using the word “tortuous” three times to describe the river.²¹³ “The only kind of vessel that can be navigated successfully on this tortuous and narrow stream at the average depth of water,” he wrote, was “a light draft stern wheel boat, with the wheel recessed, to protect it from striking the banks; the boat to draw from 18 inches to two feet of water when laden.” The steam launches already on the river would not be easily adaptable to the Navy’s needs. Thus, although he thought it ill-advised, Remy suggested that if the Navy wished to put boats on the Rio Grande, they would need to hire someone to “inspect the river to satisfy himself what class of vessels required to navigate it” and build the vessels not purchase them to ensure they would function as needed.²¹⁴ The Navy apparently took its chances and put a boat on the lower Rio Grande, but Remy’s predictions quickly came true. Just a few months later, having been alerted to an impending raid, a Navy launch tried to ascend the river presumably to Ringgold Barracks. Between February 5 and February 22, 1876, the vessel grounded “many times” between Brownsville and Rio Grande City.²¹⁵

In May 1889, seven years after the Galveston, Harrisburg, and San Antonio Railway connected Eagle Pass and Piedras Negras, a two-line article in the *San Antonio Daily Light* reported that “State Geologist Dumble and party” had arrived in Laredo, having come by boat from Eagle Pass down the Rio Grande.²¹⁶ They had made the trip in five days and conducted a geological survey of the river along the way.”²¹⁷ I was unable to find any further details about the specifics of this journey.

²¹⁰ Remy to Secretary of the Navy, November 19, 1875, 3.

²¹¹ See “Gateway to Mexico; Eagle Pass; Piedras Negras,” *San Antonio Express*, December 3, 1930, clipping, n.p., Eagle Pass, Vertical File, UTA; and Ben E. Pingenot, “Eagle Pass, TX,” *Handbook of Texas*, 1976, updated September 21, 2023, <https://www.tshaonline.org/handbook/entries/eagle-pass-tx>.

²¹² Karen Gerhardt and Tom Fort, “Early Ranching on the Northern Frontier of New Spain,” accessed June 12, 2024, <https://www.texasbeyondhistory.net/st-plains/images/he14.html>.

²¹³ Remy to Secretary of the Navy, November 19, 1875, 2, 4.

²¹⁴ Remy to Secretary of the Navy, November 19, 1875, 2–3.

²¹⁵ Lt. Comdr. H. L. Johnson to Secretary of the Navy, March 4, 1876, 28–29, Vol. 1, E. (I-18) 482: Letters Sent by Officers Commanding Naval Forces in Rio Grande, RG 45, NARA-DC.

²¹⁶ On the coming of the Galveston, Harrisburg, and San Antonio Railway, see Pingenot, “Eagle Pass, TX.” For the expedition, see “State Geologist Dumble . . .,” *San Antonio Daily Light*, May 25, 1889, 1.

²¹⁷ “State Geologist Dumble . . .,” 1.

In 1901, the International Water Boundary Commission conducted another survey of the Rio Grande from El Paso to the Gulf. Paul D. Cunningham, the engineer for the American Boundary Commission, had planned the trip.²¹⁸ According to one report, the five-person expedition was using three boats, which were described as having “rode the rapids of the Rio Grande [between El Paso, Texas, and San Marcial, New Mexico] like cruisers.”²¹⁹ Two months later, on July 13, Cunningham drowned in the Rio Grande at rapids (in all likelihood at Kingsbury’s Falls/Las Islitas) below Eagle Pass (Figure 14).²²⁰

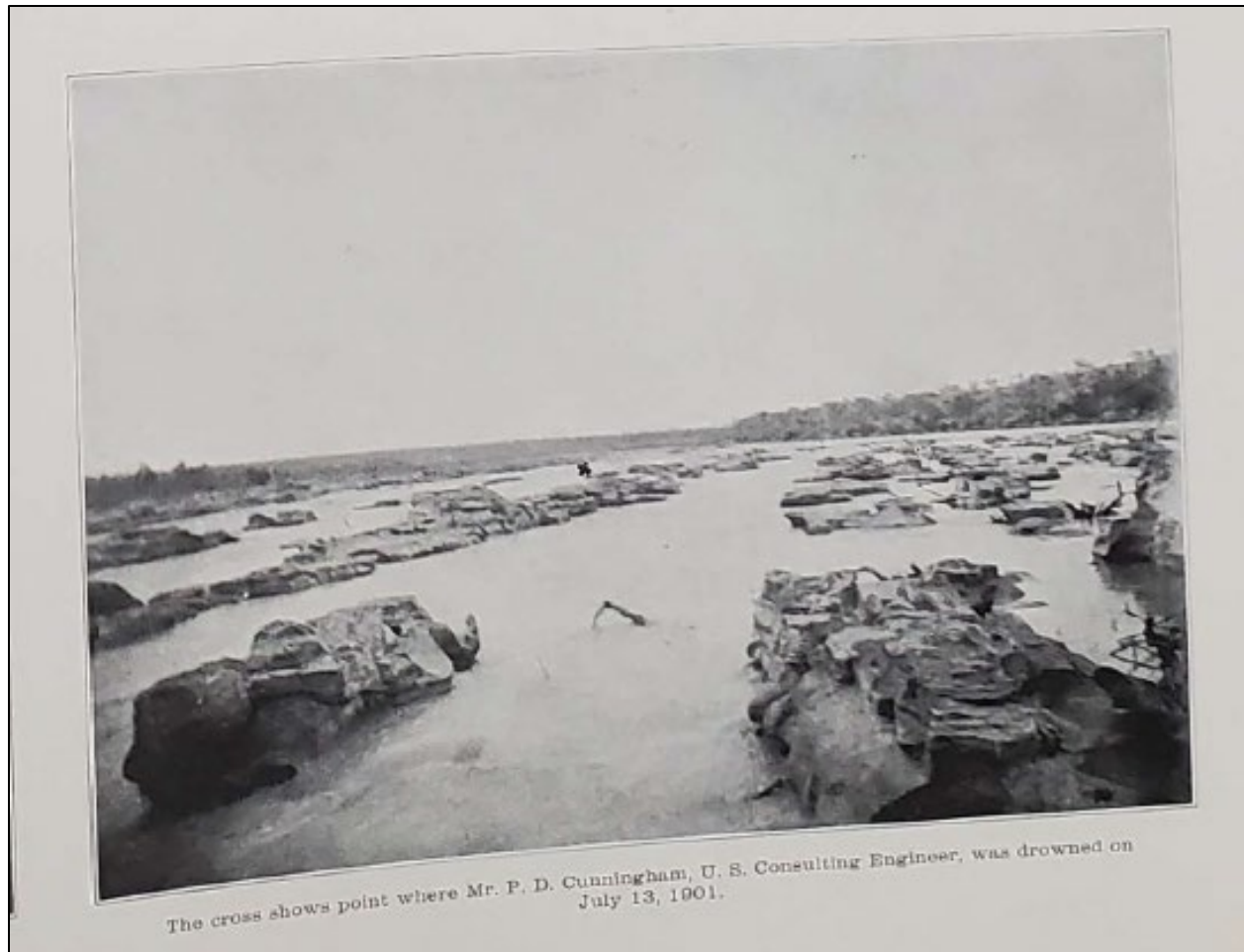


Figure 14. Rapids twenty miles below Eagle Pass on the Rio Grande, marking spot where Paul Cunningham drowned July 13, 1901, during a survey of the river from New Mexico to Laredo. Source: *Proceedings of the International (Water) Boundary Commission*, 1901, National Archives and Records Administration, College Park, MD.

In 1916, as tensions escalated along the Mexican border, the U.S. Army conducted a reconnaissance survey along the Rio Grande. Maps of the Eagle Pass–Piedras Negras area that went

²¹⁸ “Survey of the Rio Grande,” *Houston Post*, May 21, 1901, [?].

²¹⁹ “To Navigate Rio Grande,” *El Paso Herald*, May 20, 1901, 1.

²²⁰ “How Cunningham Met Death,” *El Paso Herald*, July 18, 1901, 1.

with the survey depict numerous potential fords and locations for pontoon bridges, along with an “aerial ferry” crossing from the foot of Ferry Street in Eagle Pass to an unspecified location in Piedras Negras, and an “existing ferry” upriver from Eagle Pass. However, in the entire stretch of the river between Río de Los Soldados and what is referred to as the Bates Ranch, not one wharf, dock, or any other similar structure was depicted that would imply active upstream and downstream boat use (Figure 15 and Figure 16). In 1924 and 1925, as part of surveys conducted by the American section of the International Water Commission, the U.S. Army Corps of Engineers mapped numerous fords but no infrastructure associated with watercraft maps (Map 4).²²¹

²²¹ Report of the American Section of the International Water Commission United States and Mexico, House Document 359, 71st Cong., 2d Sess., April 21, 1930 (Washington, DC: GPO, 1930), maps 3 (1924) and 5 (1925).

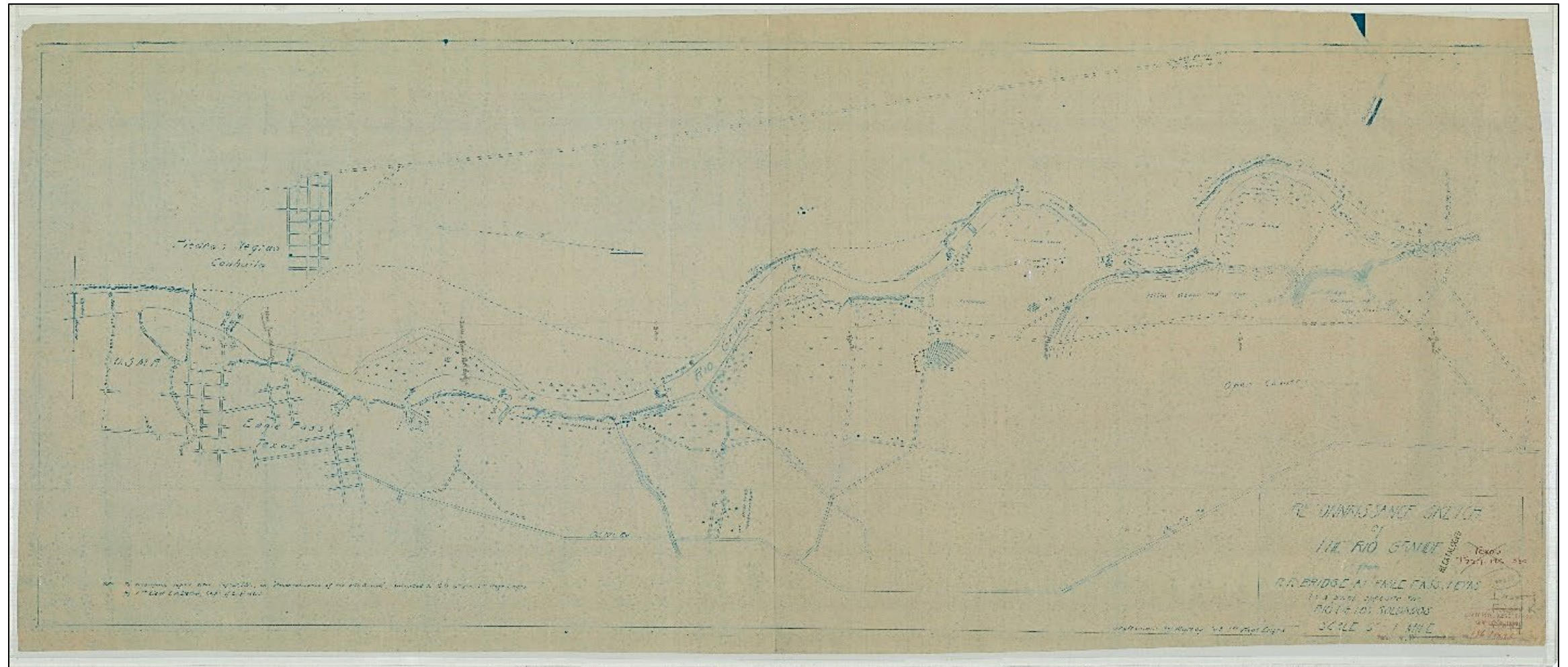
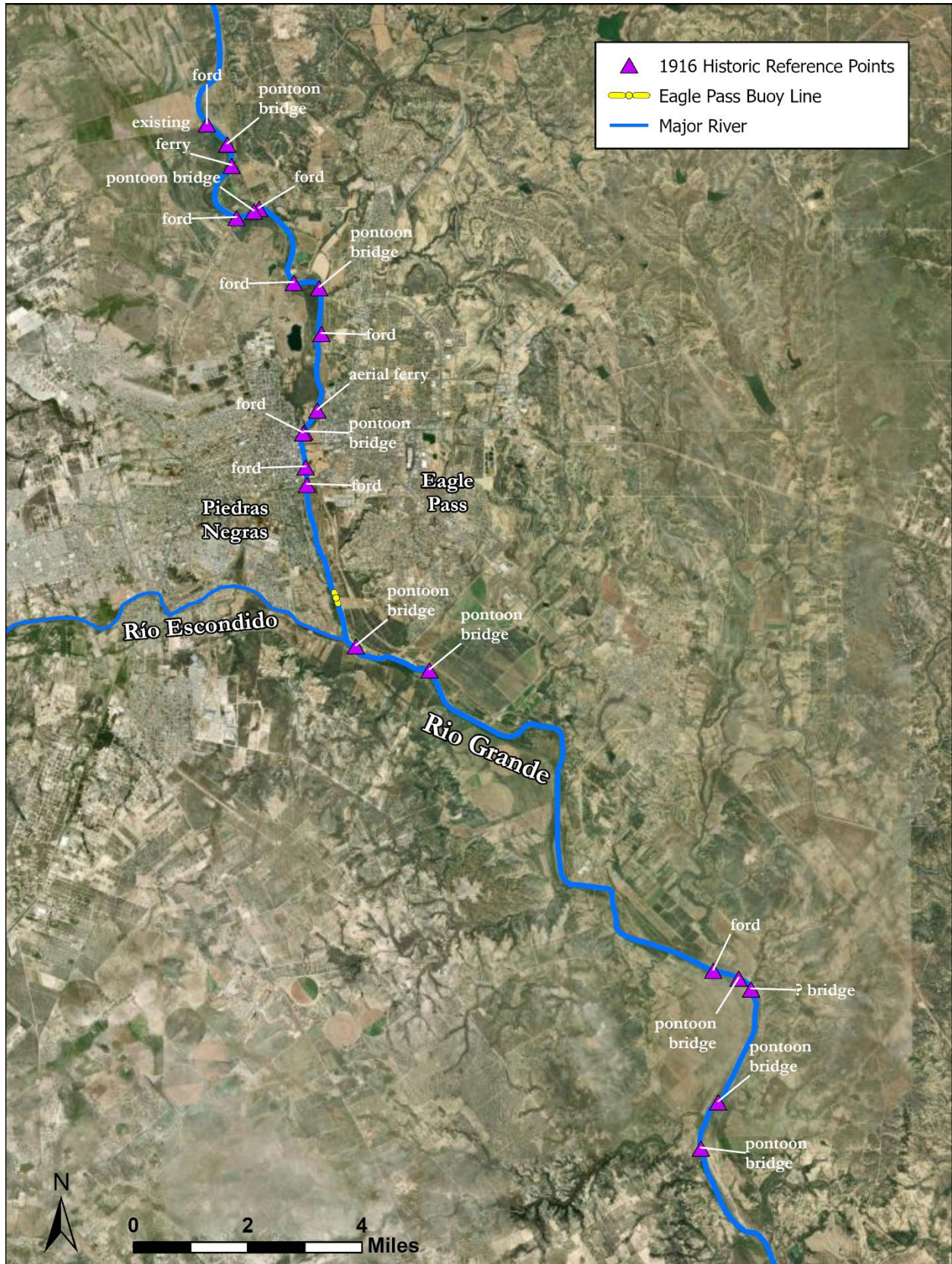


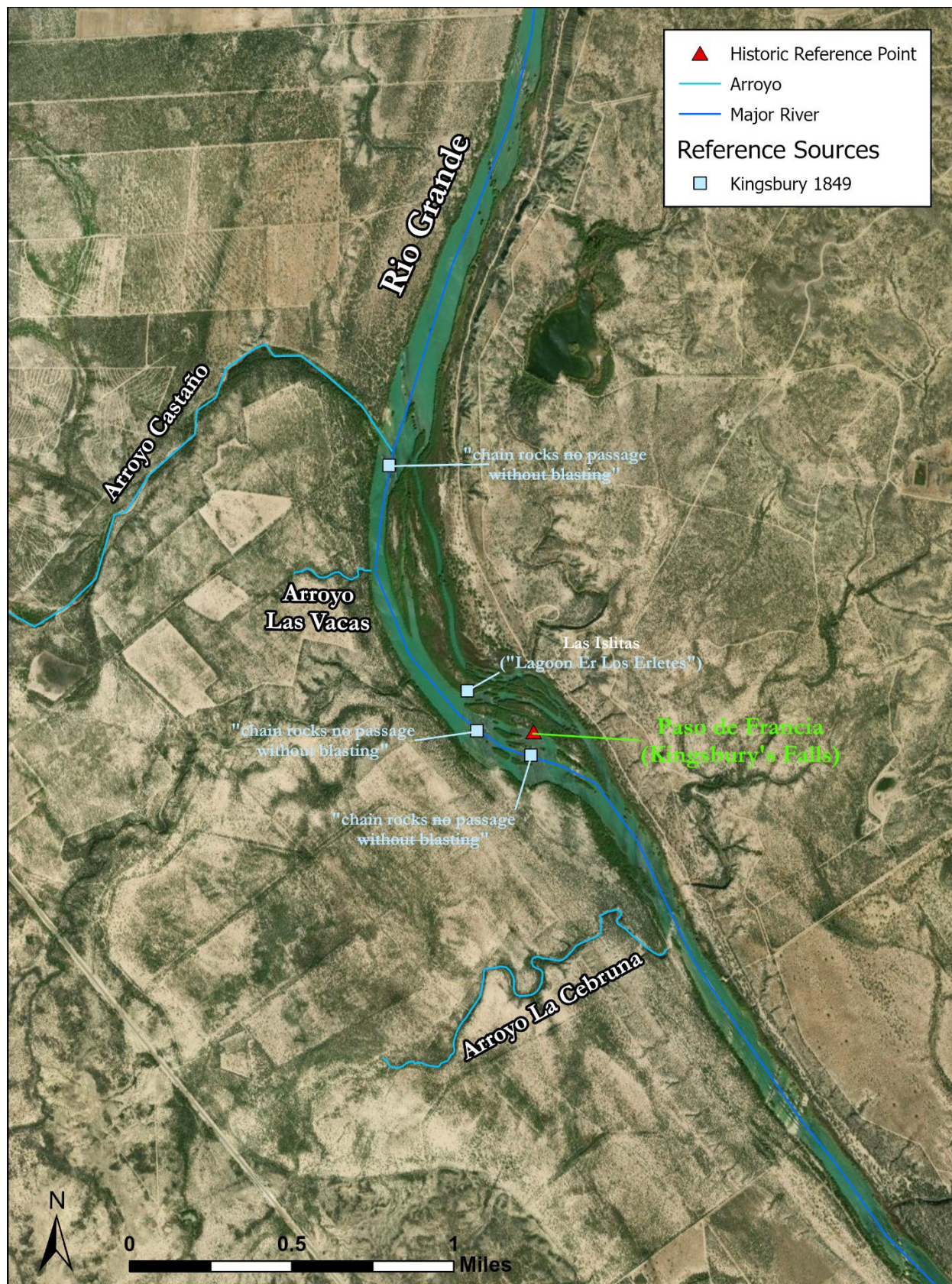
Figure 15. U.S. Army Corps of Engineers, Reconnaissance Sketch of the Rio Grande from R.R. Bridge at Eagle Pass to a Point Opposite the Rio de los Soldados, September 21, 1916. Source: NARA Online.



Figure 16. U.S. Army Corps of Engineers, Reconnaissance Sketch of the Rio Grande from R.R. Bridge at Eagle Pass to a Point Opposite the Bates Ranch, October 16, 1916. Source: NARA Online.



Map 5



Map 6

4.4 Fords, Ferries, and Watercraft on the Rio Grande at Eagle Pass-Piedras Negras, 1849-1908

The history of both what is today known as Eagle Pass–Piedras Negras and the U.S. Army Post Fort Duncan at Eagle Pass have been tied to a location where humans forded the Rio Grande. As the communities grew so did a ferry, which conveyed people and goods across the narrow river. As discussed above, hopes were high in the mid-nineteenth century that modifications of the Rio Grande between the cluster of towns in the lower Rio Grande and locations above the falls of the Rio Grande such as Eagle Pass–Piedras Negras would open regular riverine routes for commerce, communications, and transportation. While people conducting various river surveys or expeditions during the nineteenth century managed to ascend and descend the river to the vicinity of Eagle Pass–Piedras Negras, these journeys were the exception that proved the rule. At Eagle Pass–Piedras Negras and at Eagle Pass’s (Camp Eagle Pass) first location associated with Paso de Águila about 2.5 miles downriver (Map 3), people crossed the river but are not known to have conducted any kind of trade up and down it. This is not to say that boats (aside from the cable barges and ferry skiffs that carried people to and from each town) were nonexistent at Eagle Pass–Piedras Negras. However, what few boats do appear in the historical record make clear that the Rio Grande in the vicinity of Eagle Pass–Piedras Negras people did not use the river for upstream or downstream commerce or transportation.

4.4.1 Fords, Ferries, and Bridges

Eagle Pass–Piedras Negras straddles the river a few miles upriver from where the Río Escondido meets the Rio Grande on the Mexican side of the river.²²² Immediately above the confluence is what has been called variously the Old Smuggler’s Trail, Old Douglas Ford, and Paso de Águila (Maps 2, 3, and 5). In 1846, during the Mexican-American War, Captain John A. Veatch and his company of Texas Mounted Volunteers stood up an observation post called Camp Eagle Pass on the Rio Grande on what is now the Texas side of the river across from the mouth of Río Escondido (Map 3).²²³ Around the same time, a Mexican military “colony” was sited across the river from the American post (Figure 17). Three years later, on March 27, 1849, Major General William

²²² Kingsbury’s 1849 map labeled Río Escondido as Río San Fernandez.

²²³ Kinsall, *Fort Duncan*.

Worth established a U.S. Army post at the site, staffed by Captain Sidney Burbank and companies A, B, and F of the First U.S. Infantry. Soon thereafter, the post moved to its final location approximately two miles north of Paso de Águila (Figure 18) (Maps 2, 3, and 5). In November 1849, the post was named after James Duncan, a Mexican-American War hero.²²⁴



Figure 17. “[Mexican] Military Colony Opposite Fort Duncan, Texas,” ca. 1852–1853. Source: Emory, *Report*, plate after 72.

Also situated at the original location of Camp Eagle Pass was the first nonmilitary site in the area.²²⁵ Early Eagle Pass resident, Jane Cazneau, who published a book entitled *Eagle Pass* in the early 1852 under the pseudonym Cora Montgomery, provided many descriptions of the town’s earliest days. In addition to the early Camp Eagle Pass Veatch established in 1846, she explained that the early non-Indigenous people to occupy land in what is now the Eagle Pass–Piedras Negras area

²²⁴ “Fort Duncan,” *Handbook of Texas*, 1952, updated October 3, 2019, <https://www.tshaonline.org/handbook/entries/fort-duncan>.

²²⁵ Pingnot, *Paso del Águila*, 38–39n2; and Pingnot, “Eagle Pass, TX.”

settled along the banks of the Rio Grande opposite the mouth of the Rio Escondido “for commercial reasons; because it was on the right side of the fords and paths precious to contrabandists,” and because of its opportune location relative to Mexican towns and mining districts located inland from the river.²²⁶ Proximity to the troops was likely a draw as well. Cazneau had firsthand knowledge of this history as the reason she had come to Eagle Pass in 1850 with her husband William was to go into business with San Antonio merchant James Campbell, who had built the first trading post near Camp Eagle Pass on that “contrabandists” path.²²⁷ According to Kinsall, even though the town had moved north, Campbell continued to run the store until after the Civil War.²²⁸ Around the same time, John Twohig (who owned the land) surveyed and laid out the townsite of Eagle Pass. According to historian Ben E. Pingnot, after the military site moved north, the original location “remained a terminus and crossing point for trappers, frontiersmen, and traders.”²²⁹ Thereafter, cattle ranching, sheep herding, and coal mining were the predominant occupations of Eagle Pass residents; for many years, the largest coal mine in Texas was located about three miles north of Eagle Pass.²³⁰ Maverick County was carved out of Kinney County in 1856 and was officially organized in 1871 with Eagle Pass as its county seat.²³¹ The town remained unincorporated until 1910.²³²

²²⁶ Montgomery, *Eagle Pass*, 66.

²²⁷ For the date of the Cazneaus’ arrival in the area, see Pingnot, “Eagle Pass, TX.”

²²⁸ Kinsall, *Fort Duncan*.

²²⁹ Pingnot, “Eagle Pass, TX.”

²³⁰ “Gateway to Mexico; Eagle Pass; Piedras Negras”; and Texas Historical Commission, “Eagle Pass Coal Mines.” These likely correlate to what contemporary maps label “Seco Mines,” three river miles north of Eagle Pass–Piedras Negras.

²³¹ Pingnot, “Eagle Pass, TX.”

²³² Texas Municipal League, “City of Eagle Pass.”

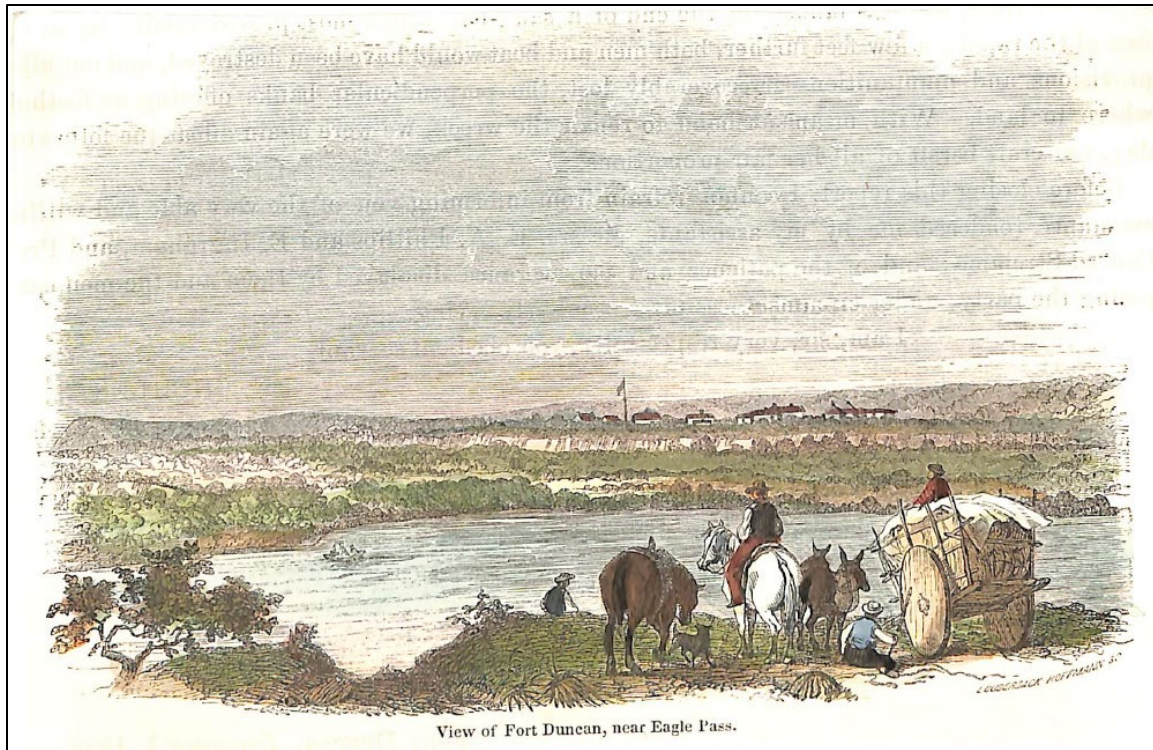


Figure 18. “View of Fort Duncan, near Eagle Pass,” ca. 1852. Source: Emory, *Report*, color print from Fort Duncan, Texas, Vertical File, Briscoe Center for American History, UTA.

In 1849, people headed for the California gold fields traveled there over a number of different paths, including an overland route from San Antonio to Eagle Pass where they crossed into Mexico, traveled overland to Mazatlán, and caught a ship headed north.²³³ In later 1849 or early 1850, after being attacked by Apache who stole their horses and livestock, a group of these California emigrants found themselves at what was by then known as Camp Duncan on the Texas side of the Rio Grande, where soldiers had found their missing animals. Taking time to regroup, the travelers settled temporarily at a location that became known as California Camp (Map 3).²³⁴ Other emigrants soon came for good, naming the new town Eagle Pass after the Spanish name, Paso de Águila. California Camp was located near the corner of what are now Commercial and Main Streets

²³³ Horgan, *Great River*, 2:785–86.

²³⁴ Horgan, *Great River*, 2:786; and Pingenot, *Paso del Águila*, 38–39n2. The first military post at this location was Camp Eagle Pass, established on March 27, 1849, on the Texas side of the Rio Grande across from the mouth of the Río Escondido. The camp was moved about two miles north to its present location and renamed Fort Duncan on November 14, 1849.

in Eagle Pass.²³⁵ The ford at Eagle Pass remained “one of the principle [*sic*] ones” on the Rio Grande in 1867 (Maps 2, 3, and 5).²³⁶

Although the exact date a ferry was established between Eagle Pass and Piedras Negras is unknown, it seemed to happen soon after the founding of Eagle Pass in 1849.²³⁷ Cazneau reported that in 1850 that a man named Harris had a contract for “a warehouse and ferry scow.”²³⁸ She also described a lake they sometimes traveled to in Mexico “within an hour’s easy ride from our ferry” and incidences of fugitives being ferried back to Mexico for punishment.²³⁹ In 1853, while inspecting the forts of the Eighth Military Department of Texas, W. G. Freeman described “two ferries near” Fort Duncan.²⁴⁰

In the 1850s, travel between Piedras Negras and Eagle Pass did not always involve the use of ferries. According to one soldier’s memoir (as reported in a later account), socializing across the narrow and often shallow river occurred regularly. In one instance, “senoritas” who could find no conveyance waded across the river to Fort Duncan.²⁴¹

In fall 1855, James Callahan crossed the Rio Grande into Mexico ostensibly in pursuit of Indians who had been raiding communities in Texas. Historians have argued that what Callahan had really been doing was chasing runaway slaves.²⁴² Whatever his motives, 111 men crossed the Rio Grande in support of Callahan’s goals. According to a later account given by longtime Eagle Pass resident, Jesse Sumpter, Callahan gathered his group at the ford above the Río Escondido (the Old Douglas Ford or Paso de Águila [Maps 2, 3, and 5]) and then sent some men up to the ferry at Eagle Pass where they commandeered skiffs and took them downriver to Callahan’s camp. Three days later, they had all crossed the river and set out for their quarry.²⁴³ When they returned emptyhanded via Piedras Negras, Callahan’s party raided the town and set fire to buildings. They then ferried

²³⁵ Horgan, *Great River*, 2:786; Kinsall, *Fort Duncan*; “Eagle Pass Laid Out 77 Years Ago,” *San Antonio Express*, June 21, 1927, clipping, n.p., in Eagle Pass, Vertical File, UTA; Pingnot, *Paso del Águila*, frontispiece map; and Texas Historical Commission, “California Camp, Atlas Number 5323000629,” Texas Historical Marker placed 1969, Texas Historic Sites Atlas, <https://atlas.thc.texas.gov/Details?fn=print&atlasnumber=5323000629>.

²³⁶ Kinsall, *Fort Duncan*.

²³⁷ Although Eagle Pass was “founded” in 1849 and became the seat of Maverick County in 1871, the town was not officially incorporated until 1910.

²³⁸ Montgomery, *Eagle Pass*, 99.

²³⁹ Montgomery, *Eagle Pass*, 104, 81, 84.

²⁴⁰ Kinsall, *Fort Duncan*.

²⁴¹ Shockley, *Eagle Pass News-Guide*, February 10, 1949, quoted in Kinsall, *Fort Duncan*.

²⁴² John Gesick, “The 1855 Callahan Raid into Mexico: Pursing Indians or Hunting Slaves?” *Journal of Big Bend Studies* 19 (2007): 47–63, esp. 47.

²⁴³ Pingnot, *Paso de Águila*, 62, 72n7. Pingnot based his book on the reminiscence of longtime Eagle Pass resident Jesse Sumpter. See also Jesse Sumpter, “Life of Jesse Sumpter, the Oldest Citizen of Eagle Pass, Texas. Commenced to Be Written May 30, 1902,” typescript, Briscoe Center, UTA.

“their plunder off from the bank of the river, which consisted of a large quantity of corn, beans, flour and produce,” aided by ferryman Ned Moore, who had been in the area since 1849, and two brothers.²⁴⁴

The ferries at Eagle Pass–Piedras Negras were used by the Confederacy during the Civil War. In early 1861, after Texas seceded from the Union, U.S. troops stationed at Fort Duncan were ordered to evacuate and Confederate troops occupied the post, which was known as Rio Grande Station.²⁴⁵ In November 1863, Confederate Brigadier General Hamilton Bee wrote to J. A. Quintero, a U.S. government agent in northern Mexico, expressing his belief that the Union would have great influence at Matamoros and “that there will be no safety for trains or travel up the Rio Grande,” which would affect the Confederates’ ability to get cotton to Mexico. Bee asked for José Santiago Vidaurri Valdez (governor of Coahuila and Nuevo León) to assist in protecting the trade, especially at Piedras Negras, which would be “as beneficial to his people as it is essential to ours.”²⁴⁶ Bee instructed that all cotton would be taken across the river at Eagle Pass and Laredo and transported to Monterrey. “The benefits to Nuevo Leon are so apparent that I need not repeat them,” Bee explained. “Commission houses, merchants, with goods of all sorts, should be at Eagle Pass and Laredo, for the trade will be heavy.”²⁴⁷ As a Texas Historical Commission sign explained, Eagle Pass was “major terminus of the Cotton Road, customhouse, and Confederate port of entry into Mexico” between 1863 and 1865 because of the Union blockade on the lower Rio Grande.²⁴⁸

²⁴⁴ Pingnot, *Paso de Águila*, 68. Edward (Ned) Moore lived in the Eagle Pass areas between 1849 and 1856. According to Pingnot, he first worked for the Army at Fort Duncan, repairing and constructing the first permanent buildings there; he later built one “the first substantial house” in Piedras Negras, after which he worked as a ferryman (Pingnot, *Paso de Águila*, 75n16).

²⁴⁵ “Fort Duncan,” *Handbook of Texas*; and Kinsall, *Fort Duncan*.

²⁴⁶ H. P. Bee to Hon. J. A. Quintero, November 9, 1863, in *The War of the Rebellion: A Compilation of Official Records or the Union and Confederate Armies*, Series 1, Vol. 26, Part 2, prepared by Robert N. Scott (Washington, DC: GPO, 1889), 399–400, quotation on 399. See also Edmund P. Turner, Assistant Adjutant-General, to Brigadier-General Bee, Commander First Division, December 5, 1863, 483, and J. Bankhead Magruder, Major-General, to James Sorley, December 21, 1863, 520–22, in the same volume.

²⁴⁷ Bee to Quintero, November 9, 1863, 400.

²⁴⁸ Texas Historical Commission, “Eagle Pass, C.S.A., Atlas Number 5323001326,” Historical Marker, placed 1963, Texas Historical Sites Atlas, <https://atlas.thc.texas.gov/Details?fn=print&atlasnumber=5323001326>.

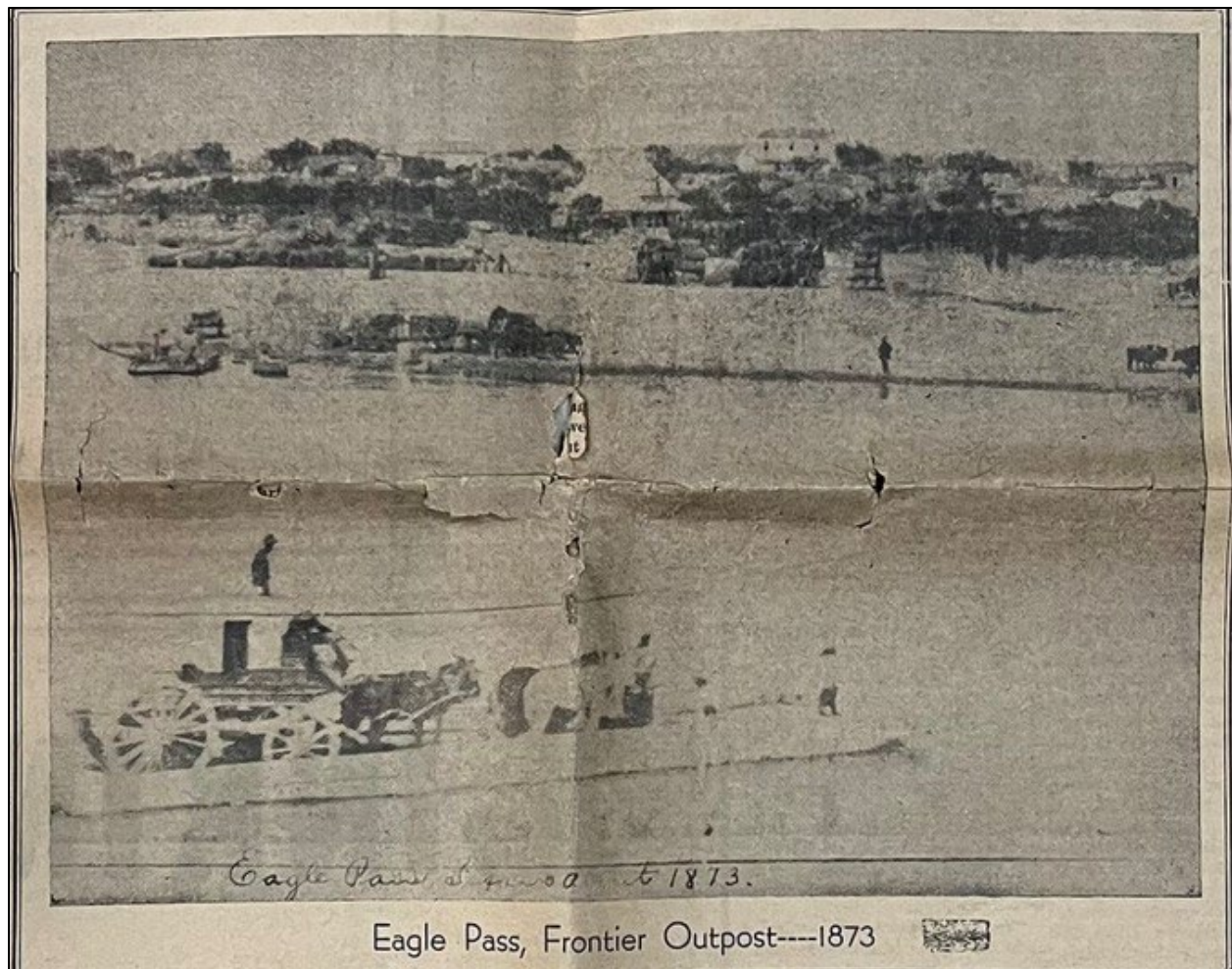


Figure 19. Eagle Pass [illegible] about 1873. Source: *Eagle Pass Daily Guide*, Jubilee Edition, July 3–5, 1936, image from Eagle Pass, Back-in-the-Day Facebook Page.

During this brief time, Sumpter (a staunch Union supporter) became inspector of customs and oversaw the transfer of large loads of cotton, most of which was “taken on across the river, thence taken down to Matamoros on wagons, and from there shipped to Europe.”²⁴⁹ According to Sumpter, “at one time, in 1864, the whole river bottoms from the bank of the river to the edge of the town was covered with cotton.”²⁵⁰ Not only cotton but also cattle and other important goods crossed the border between Eagle Pass and Piedras Negras during the Civil War. In October 1862, for example, loads of “blankets, shoes, leather, cloth, cotton goods of all kinds, coffee, rice, sugar, powder, salt peter, sulphur, medicine and in fact almost everything needed to supply the armies of

²⁴⁹ Pingenot, *Paso de Águila*, 87.

²⁵⁰ Sumpter quoted in Pingenot, *Paso de Águila*, 87.

the Rebels” were shipped from Piedras Negras to Eagle Pass. This trade continued throughout the war.²⁵¹

The Eagle Pass–Piedras Negras ferries were depicted in photographs and maps in the late nineteenth century. The oldest image I have found of the Eagle Pass–Piedras Negras ferry dates from around 1873. In the image, a man appears to be walking in the river next to a barge loaded with a wagon and horses while another man stands on the riverbank, along which appeared to be goods and a cluster of smaller boats (Figure 19; see also Figure 20). Whether this photograph is of the craft belonging to the Texas and Coahuila Ferry Company that Augustus Koch depicted in his 1887 birds-eye view of the town is unknown (Figure 21) (Map 3).²⁵² Curiously, historical research did not confirm the existence of a Texas and Coahuila Ferry Company. The historical record does suggest, however, that more than one ferry company operated at the time Koch made his map. An 1888 court case does little to clarify the matter. In that case, A. P. Tugwell and his partner “Madison” who claimed he had received a license from Maverick County commissioners’ court in June 1886 sued the Eagle Pass Ferry Company, which had incorporated on July 7, 1885, also to operate a ferry. Eagle Pass Ferry claimed that it had paid \$100 to the county for a license, but that the commissioners’ court refused to grant it. On appeal in 1888, the court ruled that “in the absence of statutory authority, the county commissioners’ court of Maverick County have no power to grant exclusive license to any person to operate a ferry on said river.”²⁵³

²⁵¹ Kinsall, *Fort Duncan*.

²⁵² Amon Carter Museum, “Eagle Pass in 1887,” *Texas Bird’s-Eye Views*, accessed May 4, 2024, http://www.birdseyeviews.org/zoom.php?city=Eagle%20Pass&year=1887&extra_info=

²⁵³ *Tugwell et al. v. Eagle Pass Ferry Co.*, Supreme Court of Texas, 9 S.W. 120, June 19, 1888, <https://case-law.vlex.com/vid/tugwell-v-eagle-pass-890668430>. Note, I was only able to access the case text in part online.

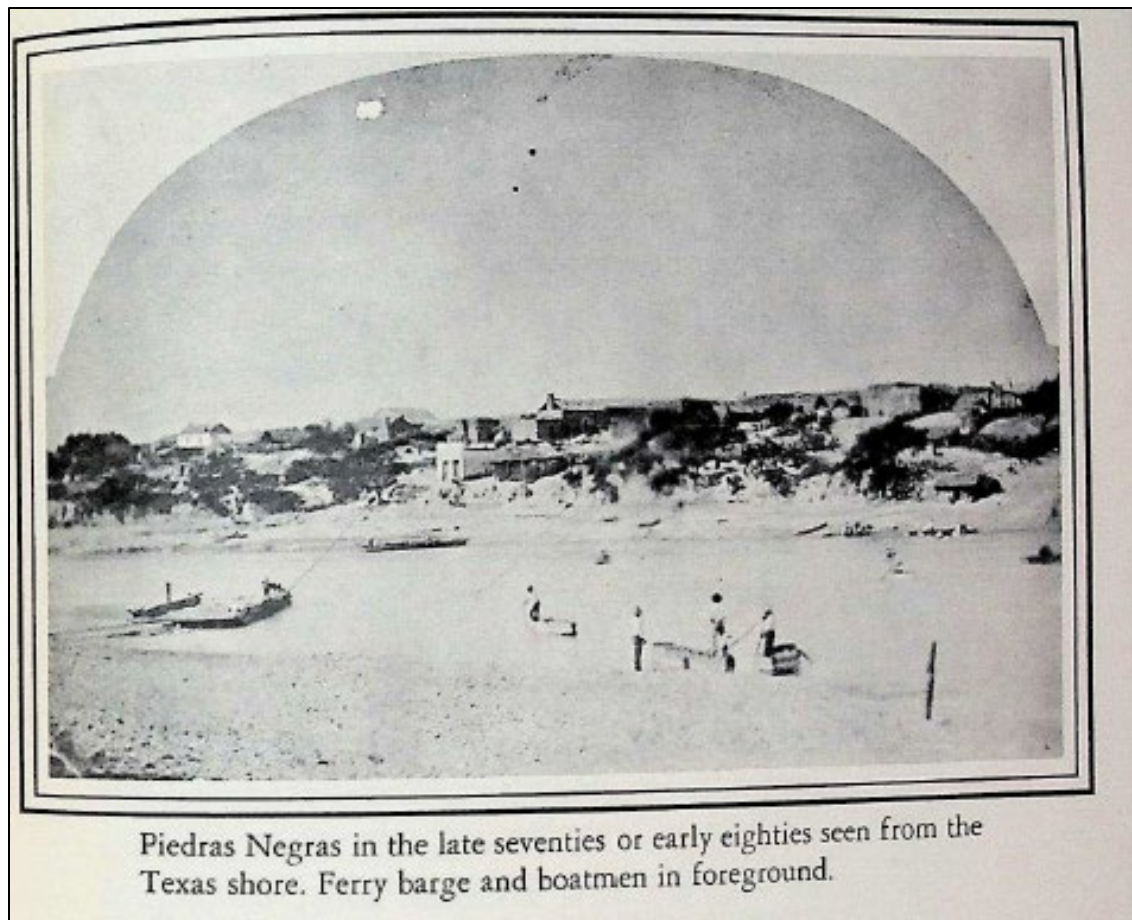


Figure 20. Piedras Negras from Eagle Pass, with ferry barge, boatmen, and skiffs, ca. 1870s–1880s, Source: Pingnot, *Paso de Aguila*, 91.

An 1890 article described the ferries at Eagle Pass as “flat-bottomed boats, each with two Mexican ferrymen, the propelling power being a pole, and its guide a rope stretched bank to bank, on which run two shorter ropes with pulleys.”²⁵⁴ In describing the ferry she took from Eagle Pass to Piedras Negras to sightsee and enjoy the annual fiesta there, Mrs. Oresmus Bronson Boyd likened it to a similar ferry she had taken across the Rio Grande in New Mexico on which she had a harrowing experience, “nothing but a rude raft with no railing or chain either fore or aft.”²⁵⁵

²⁵⁴ “Glimpses of South Texas—Life on the Rio Grande—1890,” *Harper’s Magazine* (June 1890), reprinted in *South Texan* (September 1953): 5, 14–16, quotation on 5.

²⁵⁵ Mrs. Oresmus Bronson Boyd, *Cavalry Life in Tent and Field* (New York: J. Selwin Tait & Sons, 1894), quotation on 245, compare 294.



Figure 21. Augustus Koch, *Bird's Eye View of Eagle Pass Maverick Co, Texas, 1887*, note Texas and Coahuila Ferry Company cable barge and skiffs crossing from the base of Garrison Street in Eagle Pass to Piedras Negras. Source: Briscoe Center for American History, University of Texas, Austin.



Figure 22. International wagon bridge, Eagle Pass, Tex., 800 yards long, ca. 1890–1900. Source: Briscoe Center for American History, University of Texas, Austin.



Figure 23. "Foot Bridge between Eagle Pass, Texas., and C. P. Díaz, Mexico. (Showing Eagle Pass.)," ca. 1910? Source: Eagle Pass, Back-in-the-Day Facebook Page.



Figure 24. Fording cattle across Rio Grande at Eagle Pass–Piedras Negras, ca. 1890? Source: Eagle Pass, Back-in-the-Day Facebook Page.

The first bridge to cross the Rio Grande at Eagle Pass–Piedras Negras was constructed in 1882 for the Galveston, Harrisburg and San Antonio Railway (present-day Southern Pacific [Map 3]).²⁵⁶ By 1890, a “foot and wagon bridge” (Figure 22 and Figure 23) between Eagle Pass and Piedras Negras was under construction.²⁵⁷ The bridge opened on April 2, 1890, a momentous event in the history of the two towns. On April 1, 1890, R. M. Moore, inspector in charge of the Eagle Pass customs office, wrote to F. A. Vaughn of the Saluria District that the opening of the bridge would require “at least one additional inspector and an inspectress for duty at said bridge.”²⁵⁸ Ranchers still forded herds of cattle across the river during this time as well (Figure 24). Ferries that carried automobiles ran regularly until approximately 1908, when the U.S. consul in Piedras Negras reported there being a ferry for use of people who could not pay the toll (Figure 25 through Figure 28). However, that description does not make clear whether that boat was for passengers only or

²⁵⁶ Amon Carter Museum, “Eagle Pass in 1887,” Texas Bird’s-Eye Views, accessed May 4, 2024, http://www.birdseyeviews.org/zoom.php?city=Eagle%20Pass&year=1887&extra_info=.

²⁵⁷ Jos. Metcalfe, Secretary, to S. P. Simpson, President, City of Eagle Pass, Tex., February 1, 1890, printed in “Report to Accompany S. 3050,” S. Rept. 556, March 28, 1890, 2, 51st Cong., 1st Sess., Volume 2704, U.S. Congressional Serial Set.

²⁵⁸ R. M. Moore, [Spl?] Insp. in Charge, 11 Dist. to Hon. F. A. Vaughn, Saluria District, April 1, 1890, Vol. 1890–1891, Box 1, 1886–1887, 1890–1891, RG 36, Department of the Treasury, Customs Service, Collection District of Eagle Pass, Texas, 1880–1913, U.S. Customs Service, Letters Received, 1880–1899, NARA, Fort Worth, Texas. Other sources date the bridge’s opening in 1891. For example, “Gateway to Mexico; Eagle Pass; Piedras Negras,” *San Antonio Express*, December 3, 1930, clipping, n.p., Eagle Pass, Vertical File, Briscoe Center, UTA.

whether it was still the cable barge that had been ferrying cars and wagons across during the first years of the 1900s.²⁵⁹



Figure 25. Eagle Pass cable barge ferry and *chalanas*, view toward Eagle Pass, ca. 1890? Source: Maverick County Historical Society, Facebook Page.



Figure 26. “Carriers and chalanas. Piedras Negras, Mex.,” ca. 1900? View toward Eagle Pass and either (or both) Texas-Mexican Electric Light & Power Co. and Eagle Pass Ice Co. on riverbank. Source: Eagle Pass, Back-in-the-Day Facebook Page.

²⁵⁹ U.S. Department of Commerce and Labor, Bureau of Manufactures, “Motor Machines,” *Special Consular Reports* 40, Part 2 (Washington, DC: GPO, June 1908): 79–81, quotation on 79.

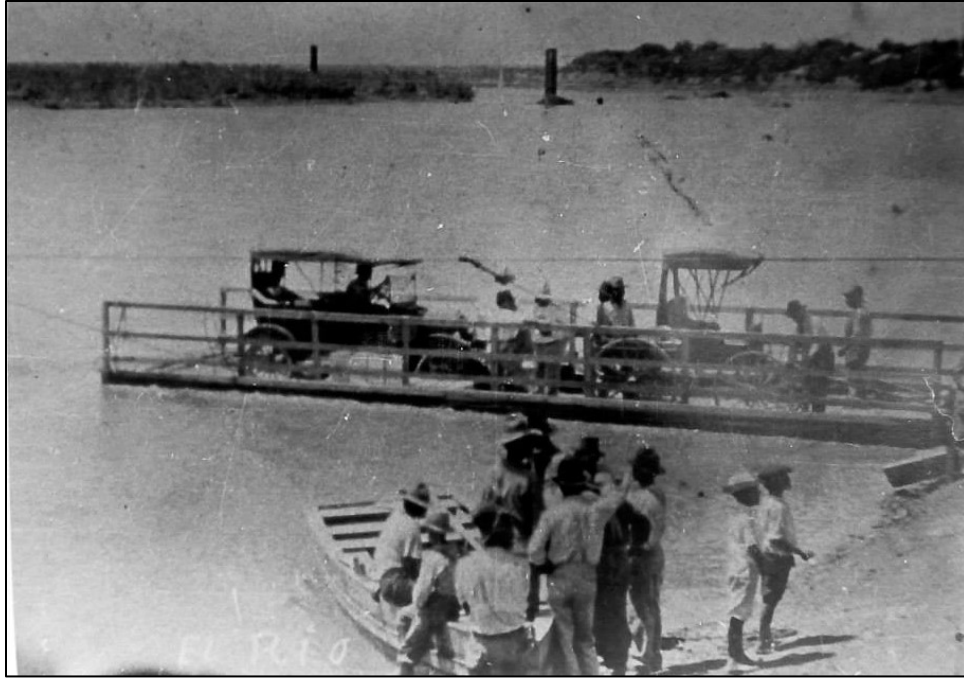


Figure 27. Ferry at Eagle Pass (likely on Piedras Negras side, upriver from railroad bridge), ca. 1906–1908. Source: Eagle Pass Back in the Day, Facebook page.²⁶⁰



Figure 28. Ferry at Eagle Pass, ca. 1906–1908. Source: Eagle Pass Back in the Day, Facebook page.

²⁶⁰ I have estimated the date of these two images on the fact that no car ferry was said to be running at Eagle Pass–Piedras Negras by 1908 and based on the two automobiles on the ferry, which appear to be a ca. 1900 St. Louis Gasoline Buggy (right) and a ca. 1906 Pierce Touring (left). Compare with Nick D., “Early 1900s Cars,” *History of Cars—The Early 1900s Cars*, blog, Supercars.net, accessed June 4, 2024, <https://www.supercars.net/blog/early-1900s-cars/>.

Ferries made an appearance again in 1922 after a flood on June 20 washed out both the railroad and vehicular bridges. Newspaper reports explained that the flood, which had caused the river to rise fifty feet—“the highest in fifty-six years”—caused “much suffering” in Piedras Negras because the town relied on cross-border trade and transport from Eagle Pass for their “food and supply.”²⁶¹ While waiting for the U.S. Army to construct a pontoon bridge, ferry service (referred to in one source as being via a “row boat”) and communications were established to reopen communication and at least some form of goods transport.²⁶² Although a new railroad bridge was built promptly, vehicular traffic used a pontoon bridge (Figure 29) until another bridge could be built to serve traffic while the new bridge was under construction.²⁶³ On January 1, 1927, the new international bridge “of concrete and steel, [standing] 9 feet above the highest known watermark” opened (Figure 30).²⁶⁴



Figure 29. “Trying out Pontoon Bridges, Eagle Pass, Texas,” ca. 1922. Source: Eagle Pass Back in the Day, Facebook page.

²⁶¹ “Rio Grande at Laredo Is at 25-Foot Stage; Expected at Rio Grande City Today,” *Galveston Daily News*, June 20, 1922, 1.

²⁶² “Eagle Pass and Sister City Use Row Boat Service,” *San Antonio Evening News*, June 24, 1922, [2?]. A Spanish-language publication referred to a “ferry” that was up and running within a few days to transport people and “cargo” across the river (“Se restablece el trafico en Eagle Pass,” *La Prensa* [San Antonio, TX], June 23, 1922, 5. See also “Flood Crest Past Rio Grande City, Little Loss There,” *San Antonio Evening News*, June 22, 1922, 1–5.

²⁶³ The 1924 Sanborn Map Company map depicts a “wooden bridge” crossing the river, extending from Main Street in Eagle Pass to Piedras Negras. The pontoon bridge depicted in Figure 29 is clearly wooden, but whether another wooden bridge replaced it before the new bridge was finished is unclear (Eagle Pass 1924 Sheet 1, map, 1924, Portal to Texas History, <https://texashistory.unt.edu/ark:/67531/metaph552881/>).

²⁶⁴ “Gateway to Mexico; Eagle Pass; Piedras Negras,” *San Antonio Express*, December 3, 1930, clipping, n.p., in Eagle Pass, Vertical File, Briscoe Center, UTA.

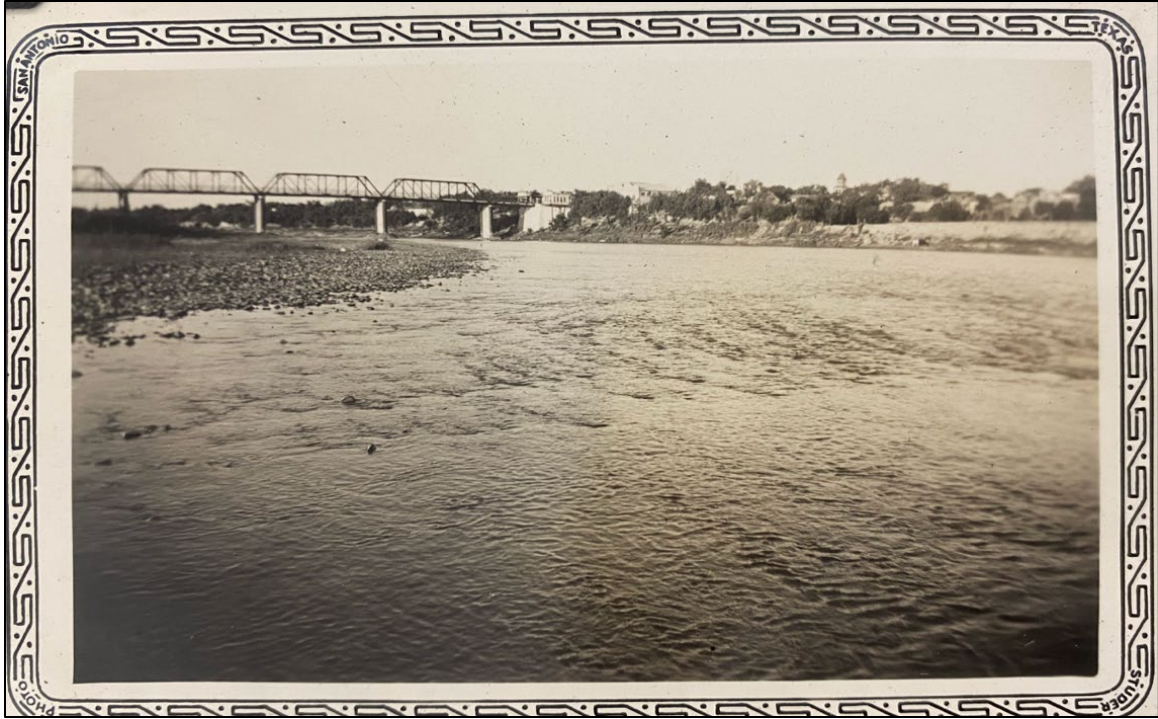


Figure 30. Eagle Pass, 1927 International Bridge (background) and site of pontoon bridge upriver (*foreground*), view toward Piedras Negras, ca. 1930s. Source: Elmer J. Edwards Photograph Collection, Briscoe Center, UTA.

4.4.2 Miscellaneous Watercraft at Eagle Pass-Piedras Negras between 1848 and 1922

Historical research yielded few examples of watercraft at Eagle Pass–Piedras Negras other than the cable ferries and ferry skiffs. Examples of boats that were not in use specifically carrying people across the river between the border towns were rare.

When the Cazneaus arrived in the nascent towns of Eagle Pass–Piedras Negras, both of which were small military outposts facing each other across the Rio Grande, the ferry did not yet exist. The fact that they first settled at the Paso de Águila (the ford) suggests that no one yet had even small personal watercraft with which to cross the river or take short journeys along its banks (Maps 2, 3, and 5). Likely one of the first examples of a personal boat in the area was one Cazneau described in *Eagle Pass*—a “light skiff” that the ferry contractor Harris built for Don Juan Fernandez, a rancher who had moved to the new community with his family. Another man had a canoe with which he gathered materials to build a house. The Cazneaus also acquired “boats”

(perhaps also built by Harris) that they used to explore the river on which they were living. One destination was the “Bathing Rapids on the Escondida [*sic*]” (Figure 31).²⁶⁵



Figure 31. Women, children, and young man on horseback, wading in stream (possibly Río Escondido?), ca. 1870s–1880s? Source: Eagle Pass, Back-in-the-Day Facebook Page.

The next example was a two-line news report about the “State Geologist Dumble,” who descended the Rio Grande from Eagle Pass to Laredo on a geological survey in 1889.²⁶⁶ In 1898, *Fur Trade Review* described the tragic story of three Canadian trappers, Pierre Bauduy, Alphonse Pichot, and Edouard Coco, who had arrived in El Paso in 1889 and constructed “three, small, strong boats” with the intention of trapping along the river. They loaded the boats with “supplies, weapons, and traps” and began descending the Rio Grande. Four months later, after a harrowing journey, during which both Coco and Pichot drowned in the treacherous 300-mile-long “Rio Grande cañon” that reportedly began 80 miles below El Paso and ended 60 miles above Eagle Pass, Bauduy, with a boat

²⁶⁵ Montgomery, *Eagle Pass*, 99.

²⁶⁶ “State Geologist Dumble . . .,” 1.

in tow carrying 400 beaver skins. According to the article, he sold the skins for “\$6 apiece” before disappearing into Mexico.²⁶⁷ As noted previously, Paul Cunningham’s ill-fated 1901 boundary survey had just passed through Eagle Pass before Cunningham drowned in rapids about 30 miles downriver.²⁶⁸

By 1908, the ferry route at Eagle Pass–Piedras Negras was all but gone. That year, U.S. Consul Lewis Martin, based in Piedras Negras (then known as Ciudad Porfirio Díaz) stated that the Rio Grande was “not navigable,” and that the river was too shallow for motor boats. In six years of living in Piedras Negras, Martin reported that he had only seen two boats on the river. One was a “small plank boat used for ferrying foot passengers” between Eagle Pass and Piedras Negras. Operating “just below and near the iron bridge,” the ferry was intended for people unable to pay the bridge toll. According to Martin, the boat ceased operations at 6 p.m. Whether tied up or on the water, the ferry was always “under the surveillance of the customs guards . . . whose station is on the bridge, in plain view, not more than 50 yards away.” The other boat was “a small motor boat” that two men in Eagle Pass built as a “pleasure craft” in 1906. Consul Martin saw the boat “two or three times, and on each occasion it was stranded on a sandbar or some projecting rock.” The boat apparently “afterwards disappeared.”²⁶⁹

²⁶⁷ H. S. Caufield, “Beaver,” *Fur Trade Review* 25, no. 8 (March 1898): 138.

²⁶⁸ “Survey of the Rio Grande,” [?]; “To Navigate Rio Grande,” 1, and “How Cunningham Met Death,” 1.

²⁶⁹ “Motor Machines,” 79.

5 Conclusion

Indigenous and non-Indigenous people in what is now the U.S. state of Texas and the Mexican state of Coahuila historically forded and occasionally used shallow-draft watercraft to cross the Rio Grande. Numerous fords existed between RM 275.5 and 610, with the major three, Paso de Águila, Paso Pacuache, and Paso de Francia located, respectively, three, thirty, and thirty-five miles downstream of what is today Eagle Pass–Piedras Negras.

Prior to the Mexican-American War of 1846–1848, cross-river traffic continued. In the late seventeenth and eighteenth centuries, Catholic missionaries forded the Rio Grande on expeditions to locate and convert Indigenous people living across the river. In the mid-eighteenth century, after Mexico established the *villas del norte* bordering the lower Rio Grande. Before the river became the international boundary in 1848, these communities were part of the province of Nuevo Santander (today's Tamaulipas). Historical documentation indicated that residents would have exclusively used flatboats (likely maneuvered with a pole and oars or a small sail) or rafts or canoes of some kind to travel among these settlements on the water. Upstream/downstream travel on the lower Rio Grande also grew after the founding of the *villas del norte*. In 1824 or 1825, the first steamboat arrived on the lower Rio Grande. Just over a decade later, steam-powered boats, barges, and keelboats played an increasingly significant role in commerce and travel below Laredo. The steamboat era was short-lived, however, and by the 1870s, steamboat use on the lower Rio Grande was in steep decline. Although a brief resurgence occurred at the outset of the Porfiriato in Mexico, steamboats had disappeared from the lower Rio Grande by the first century of the twentieth century.

Between 1828 and 1853, several parties surveyed the Rio Grande to assess whether watercraft could travel upstream from Laredo. In its natural state, the falls of the Rio Grande (Kingsbury's Falls) and other obstacles along with unpredictable rises and falls in water level, had until this time, prevented a practical, continuous route for travel by watercraft of even the shallowest draft. Among the parties that set out to survey the extent of the river were the Mexican Boundary Commission survey in 1828, Egerton's 1834 reconnaissance to locate a site for a failed attempt to establish a "colony" near present-day Del Rio, Texas, at least five expeditions that included a combination of members of the U.S. military and civilian engineers in 1849 and 1850; and a joint U.S.-Mexican boundary survey in 1853. Despite the efforts to ascend the river and the optimism of the people who reported that the impassable river could be rendered usable as a highway of

commerce above the river's lower reaches, none of their recommendations ever came to pass. Ultimately, no public or private entity found the potential benefits of such efforts compelling enough to fund and execute the engineering feat that opening the river would require. Although two more boundary surveys occurred in 1898 and 1901, these trips were made downriver in small boats. During the 1901 expedition, one of the surveyors drowned at Kingsbury's Falls—the same obstruction that had long-thwarted the use of the Rio Grande for riverine commerce. When the U.S. military surveyed the Rio Grande during the Mexican Revolution in 1916, there was no evidence of upstream or downstream military travel either existing or considered.

The history of both what is today known as Eagle Pass—Piedras Negras and the U.S. Army Post Fort Duncan at Eagle Pass have been tied to a location where humans historically forded the Rio Grande. As the communities grew, so did a ferry, which conveyed people and goods across the narrow river. Despite the hopes of some mid-nineteenth century people that the Rio Grande could be opened for use as an upstream/downstream highway of commerce above Laredo, the historical record makes clear that people in the vicinity of Eagle Pass—Piedras Negras did not use the river for upstream or downstream commerce or transportation.

6 Benjamin Johnson, PhD, Expert Report Rebuttal

While I was conducting my own research and writing this report, I had the opportunity to review the expert report written and submitted to the Texas OAG by Benjamin Johnson, PhD, the United States' historical expert. Johnson has an impressive resume and is a well-respected academic scholar of Texas, Mexico, and borderlands' history. Johnson's analysis is based on many of the same documents that HRA historians unearthed. Johnson used some documents that we did not gather; conversely, my colleagues and I compiled many different documents about the history of human use of the Rio Grande.

In several instances throughout Johnson's report, however, our research and my analysis of the same sources Johnson uses suggests that he has overstated conclusions regarding, especially, the use of the Rio Grande between RM 275.5 and 610 or specifically at the current location of the Floating Buoy Barriers at issue in this case at any time as a riverine highway of commerce. An issue that persists throughout his report is the unqualified use of the term *navigable* and its synonyms (*navigate*, *navigation*, *navigating*). He uses other terms loosely and makes assertions based on little to no evidence. Additionally, Johnson seems unfortunately either to have misread or unwittingly taken at face value historical inaccuracies promulgated in other historians' work. This rebuttal is in no way meant to disparage Johnson's professionalism or analysis; instead, I present here an outline of the main issues I see in his report.

In my opinion, Johnson draws broader conclusions than the documents he uses can support. As with the terms related to navigation, he uses terms such as *substantial watercraft* or *vigorous navigation* without definition or qualification. Although he refers to a keelboat as "substantial," one wonders what constitutes—in his first opinion—the "substantial watercraft" "visitors and residents . . . identified the Rio Grande, including the stretch between and in the vicinity of" Eagle Pass–Piedras Negras, as "capable of carrying."

Johnson also uses vague terms to describe historical locations in relation to their feasible contemporary site. For example, what does the word *vicinity* mean in the following phrases: "*in the vicinity of what is now the Eagle Pass-Piedras Negras area*," "*the stretch between and in the vicinity of the present-day twin cities of Eagle Pass, Texas-Piedras Negras, Mexico*," or "*the river in the vicinity of Eagle Pass*"? Does vicinity imply the extent of the river 1, 2, 10, or 100 miles on either side of the cities/city?

Conversely, does “*in the vicinity of the Rio Grande*” mean along the entire river from the Gulf of Mexico to the river’s headwaters in Colorado or just a specific stretch? Does it mean within 1, 2, 10, or 100 miles on either side of the river’s center? Without more specificity or historical documents to better locate the activities he describes, Johnson appears to be drawing overly general conclusions about where certain things did or may have occurred. Also problematic is Johnson’s use of the terms *lower Rio Grande*, which he depicts as the segment of river from the mouth of the Rio Conchos to the Gulf of Mexico, *lower Rio Grande valley*, which he says, “refers to the large delta at the lower reaches of the river, in Starr, Cameron, and Hidalgo Counties” (Johnson 2n1). In fact, he never uses the term *lower Rio Grande valley* again, but uses the presumably synonymous terms *lower river valley* and *lower reaches of the river* once each in the text (Johnson, 7, 9, respectively).

Although Johnson specifies a clear distinction between the two, he uses *lower Rio Grande* and the presumably synonymous (given the lack of the qualifier *valley*) *lower river* when discussing and analyzing documents clearly focused on activities within the area he defines as the *lower Rio Grande valley*—for example, when referring to the *villas de norte* Escandón founded in Nuevo Santander. Johnson actually uses the term *lower river* almost exclusively when describing the stretch of river below Laredo. He also conflates historical facts about the segment of the river contained within Starr, Cameron, and Hidalgo Counties with the segment of river in the vicinity of Eagle Pass—Piedras Negras—for example, using in discussions about “runs of steamships on the *lower river*” (11), three steamboats on the *lower river* and one as far upriver as Laredo (12); an apparent discussion of the unnamed Mier Expedition (Mier being within what he defines as the *lower Rio Grande valley*) (12); “at least six steamships on the *lower river*, running from the mouth up to Laredo” (15); removing incentives to “link[ing] Eagle Pass—Piedras Negras to the *lower river* by regular navigation (20); “the more heavily-populated and trafficked lower river” as compared to the Eagle Pass—Piedras Negras area (25); “fleets of flatboats [carrying goods] from north of Laredo . . . on the lower river” (28); and rail lines that “reduced *lower river* commerce” and “large-scale commercial shipping on the *lower river*” (30).

Semantics and imprecise terminology aside, Johnson’s analysis of the historical documents he found reflects my own on some points. His cited sources support the argument that humans have used watercraft to move people, animals, and goods *across* the Rio Grande since before European colonization of the borderlands region between what would become Mexico and the United States. Like Johnson, HRA historians also uncovered numerous sources to support the fact that starting in

the late 1820s, both cross-river and upstream and downstream travel was occurring on the lower Rio Grande; but no sources that we have found indicate that any kind of regular upstream or downstream travel was regularly happening above Laredo, or more specifically, above the so-called falls of the Rio Grande (Kingsbury's Falls) or in the vicinity of Eagle Pass–Piedras Negras, much less a highway of commerce of any kind.

Both Johnson's and HRA's sources agree that by the mid-nineteenth century people in what are now Mexico and the United States surveyed and attempted to ascend the Rio Grande above Laredo to assess whether the river could be used for regular upstream and downstream military or commercial travel. A few of these expeditions were "successful" in the sense that a group of people were able to move upriver and downriver by hauling their boats over several substantial, year-round obstacles in the river, including what became known as Kingsbury's Falls approximately forty miles downriver from Eagle Pass. Furthermore, we encountered the same accounts Johnson did of cross-river traffic on cable barges and small, flat-bottomed boats (*chalanas*) between Eagle Pass and Piedras Negras from approximately the founding of Fort Duncan in 1849 through the first decade of the twentieth century.

As outlined above, we also both located minor references to small watercraft being used for personal use, for example, Cazneau's descriptions of early Eagle Pass settlers using small boats or canoes. I don't dispute Cazneau's narration around these watercraft. However, I do take issue with Johnson conflating Cazneau's reports of familial pleasure outings during the year or two she resided in the area (at the time, almost completely unpopulated) with depictions of watercraft in sketches that Emory's staff drew in 1852 or 1853 of Fort Duncan and the military outpost on the opposite bank of the Rio Grande that would become Piedras Negras. At the time of Emory's survey, even in Johnson's own words, these boats were "dropping off or picking up two people . . . on the Mexican side." No evidence suggests that the small flatboat, *chalana*, or canoe in these watercolors were part of a larger use of the river as an upstream/downstream highway of commerce on an "easily navigable and actually navigated waterway" or the "persistence of navigation" in the area (Johnson, 23).

HRA's research revealed only three other records of boats moving up or down the river. One account retold the story of a beaver trapper who departed El Paso with two others who died under potentially suspicious circumstances along the way, offloaded pelts in 1889, and then disappeared into Mexico. The other was a 1908 consular report that recorded one instance of a

personal watercraft in the area that remained in the area less than a year and was reported as having been regularly grounded in the river. After a 1922 flood destroyed the extant automobile/pedestrian bridge between Eagle Pass and Piedras Negras, a boat was pressed into service to help people cross the river while a pontoon bridge was being installed and the bridge rebuilt. This boat may have been the remaining ferry boat the 1908 consular report described as a last measure for people who could not afford to pay the toll to cross the international bridge at Eagle Pass–Piedras Negras. No evidence suggests this boat’s use was more than a stopgap to facilitate short-term passage of people, animals, goods, and information across the river during an emergency.

In other instances, Johnson draws inaccurate conclusions and makes unsupported assumptions about riverine conditions at what is now Eagle Pass–Piedras Negras based on sources that specifically discuss the lower Rio Grande (in my definition of the term). For example, Johnson points to a mention of one watercraft in Tienda de Cuervo’s 1757 inspection of Nuevo Santander (current Tamaulipas) and one flatboat that appeared “shortly thereafter” (another vague description) to expansively claim that “the use of watercraft on the Rio Grande had within just a few years [of the 1750s expansion of Spanish towns along the Rio Grande] become a part of life and commerce in the Spanish settlements” (Johnson 6). Other people migrating to the area may have devised small watercraft to move about after 1750; however, more than seventy-five years later, in 1828, when Bradburn and Staples became the first recipients of a grant to bring boats to the Rio Grande, they only had one keelboat. This was followed by Austin’s boat *Ariel*, which departed only a year later.

Johnson also inaccurately represents or overstates the importance of reports written by surveyors of the late eighteenth and early to mid-nineteenth century who advocated for the potential the Rio Grande had for regular upstream and downstream travel. In one case, Johnson erroneously states that Calleja analogized the Rio Grande to the Mississippi in his 1795 report. Johnson apparently quoted Kelley’s account that Calleja “saw the Rio Grande as a second Mississippi” (Kelley 11) without verification (Kelley does not cite a source). Calleja makes no such statement. He does mention the Mississippi but only insofar as Americans could get goods from the U.S. to a Mexican port (river mouth), “via the Mississippi to San Bernardo Bay, and even better to the Rio Grande” from where the “[Anglo-Americans] could transport goods 100 leagues inland,” presumably to Laredo. Without finding and analyzing the primary source himself, Johnson repeated Kelley’s erroneous assertion.

I agree with Johnson that surveyors during this period suggested that (with modifications) the Rio Grande might become usable as a highway of commerce. However, just because a handful of people stated that opening the river was feasible (or wanted to report positive news to superiors about what they had found—or both) does not prove that it was possible or feasible to do so. Johnson does not accurately qualify historical statements about the river’s potential as a reflection of the hopes of the people who wrote them. Nor does he explain that all the statements these surveyors made were either far more speculative than accurately prescriptive or simple boosterism (in the case of Egerton, specifically). By not clarifying this, Johnson erroneously conflates optimistic descriptions with a foregone conclusion that people would modify the river to make hopes match facts.

The documents HRA located also support Johnson’s description of continued use of overland routes of commerce from the time of Spanish missionary forays across the Rio Grande in the eighteenth century through the cattle drives, military and civilian wagon trains, emigrant routes, and eventually railroad tracks and automobile roads of the nineteenth and twentieth centuries. He also notes the declining steamboat trade in the lower Rio Grande by the 1870s and 1880s and the ongoing lowering of the river that use of upstream water for irrigation increasingly caused during the same time.

Our interpretation of these facts, however, differs. Johnson uses evidence of ongoing use of overland routes and decreasing water levels in the lower Rio Grande to support his implication that the perception of the river’s “navigability” during that time reflected physical reality. He also conflates historical discussions that say both that the river could easily be opened as a highway of commerce and that this might not happen due to other factors to argue that the latter was a foregone conclusion. He does not make clear, however, the true level of effort that was required to open the river up—a fact supported by historical maps and physical descriptions of the hundreds of miles of river that would need not only engineering but also constant and predictable water level and flow. Johnson takes the recommendations of men like Berlandier, Love, or Emory and accounts like Cazneau’s about Love’s ascension of the river to Eagle Pass to mean that it was not only possible to open the river to commerce upriver from Laredo but that the ease and benefits of doing so was an agreed-to “truth” among most people. The historical record does not support this inference or conclusion.

As I read the historical record, the fact that early optimists—who were tasked with reporting *possible* means by which to open up a river that was known to be impassable year-round in certain sections and during parts of the year in others—underlines the reality that the Rio Grande between Laredo and Eagle Pass–Piedras Negras had never been easily or regularly traveled upstream or downstream by anything larger than a canoe or *chalana* and that trying to make it accessible year-round for boats larger than this would take a large (and likely expensive) feat of engineering. If the powers that be did not perceive the benefit of removing those obstacles sufficient to allocate the needed funds and labor to remove of these obstacles, then the predictions that it was more than likely that other, more economical and efficient routes would prevail ensured that the river would remain impassable below Eagle Pass–Piedras Negras.

Some of Johnson’s assertions are incorrect, inaccurately stated, not supported by evidence, specious, and/or based on faulty logic. For example,

- “The stretch of the river between Presidio del Rio Grande and the future site of Eagle Pass–Piedras Negras was no more challenging to [substantial, large enough to carry 125 men each . . . than] was the stretch of the river from Laredo to Presidio” (Johnson 11).
 - Presidio del Río Grande was located approximately six miles inland from the river and therefore was not technically on the river and could not be a point along a “stretch” of river.
 - Johnson cites Kelley here, in the context of Rackliffe’s freighting business beginning in 1831 but when one checks Kelley’s narrative and sources, one finds not only that Kelley’s evidence was thin but that he also misread his source (which I reviewed). Johnson then not only repeats Kelley’s inaccurate representation of his source but also draws from it his own inaccurate conclusion.
 - If Johnson means the *falls of the Rio Grande* often associated with one of two roads leading to Presidio del Río Grande, then it is essential for him to clarify whether he means the *head* of the falls (typically associated with Paso Pacuache) or the *foot* of the falls (typically associated with Paso de Francia), which are approximately five RM away from each other. While it might have been true that keelboats could make it from Laredo to the foot of the falls and from the head of the falls to Eagle River,

there is no documentation that keelboats could pass over the falls in any amount of water and thus access these portions that posed no challenge. I

- “there were no settlements on the river upstream from Presidio, and thus no markets or supplies for goods, and thus no reason for Rackliffe to have extended his freighting networks that far upriver” (Johnson 11)
 - Circular argument.
- “Bradburn and Staples soon sent a steamboat up the river. How far it traveled is unclear, though it may have come as close to the site of the future Eagle Pass-Piedras Negras as Kingsbury Falls/Las Isletas.”
 - Not inaccurate but wording implies proximity and ease of travel without explaining the distance (about thirty-five miles) and physical barrier (around five miles of intermittent falls/rapids and chains of islands) between the bottom of the falls and Eagle Pass–Piedras Negras.
- The steamboat *Ariel* went “as far upriver as Mier; by 1830s, was making regular runs between Camargo, Reynosa, and Matamoros” (Johnson 11).
 - Overstated that *Ariel* made “regular runs.” Austin arrived with the *Ariel* on the Rio Grande in summer 1829 (June or August, depending on the source); his crew was sick with cholera during fall 1829 and Austin himself was sick in spring 1830. By July 1830, Austin had given up on the Rio Grande and departed for the Brazos River. Furthermore, the *Ariel* drew 5 feet (according to pilot Alpheus Rackliffe) not 3 ½ (which Austin had reported to Berlandier), which according to Kelley, limited the extent to which he could navigate the river and restricted him to trading between Camargo, Reynosa, and Matamoros (Kelley, 20). Thus, as I read the sources, *Ariel* operated only sporadically over the course of one year.
 - According to an editorial published on October 24, 1829, Austin’s was “the first effort that has been attempted, to introduce this species of navigation on any of the rivers of the Mexican republic, and it displays a degree of bold adventurous enterprise highly creditable to the man who has undertaken it.” He had succeeded in reaching Revilla (Guerrero) but “finding the water too low to progress with safety, he declined going any higher until the spring freshets.” Tellingly, even this glowing

account of Austin's efforts begged the question of "Whether the navigation is practicable at any time, as high as the confines of New Mexico, or even to the Paso del Norte." Instead, the editor wrote, this was "quite problematical, for heretofore no species of navigation has ever been attempted, on any part of that river above . . . Matamores [*sic*], Not even with canoes, and this fact, presents a strong proof of the boldness in the enterprise" (San Felipe *Texas Gazette*, October 24, 1829, quoted in Hogan, 190).

- "In 1831, Rackliffe was commissioned by the Mexican government to survey the Rio Grande, charting the river and its flow and banks all the way to the Sierra Blanca mountains in Chihuahua, far upstream from present-day Eagle Pass-Piedras Negras and beyond even the confluence with the Conchos." (Johnson 11)
 - Another misreading of Kelley and failure to review Tilden, which was Kelley's primary source. According to Tilden, Rackliffe was onboard the *Major Brown* "as a guide and interpreter" in October 1846 under the command of Captain Mark Sterling (Tilden, 8). On October 24, the *Major Brown* "astonished the people of Laredo by her arrival at that port, destined beyond dispute to become the head of navigation on the Rio Grande" (22). However, Further progress of this expedition upriver from Laredo was "deemed inexpedient" "owing to the unexpected falling of the river" (23). Thereafter, a party of four, including two of the boat's pilots, one engineer, and guide and interpreter Doctor Rackliffe, joined by a Mexican, set out on horseback for Presidio del Río Grande in order to explore the river between there and Laredo, "in such a boat as they might be able to procure" (24). "The town of Presidio de Rio Grande, or of the 'Garrison of the Rio Grande,' is situated about six miles from General Wool's crossing, at the river, and contains two thousand inhabitants" (25).
 - "Re-crossing the Rio Grande near Presidio, the party received a "dug-out, which had been much cut up, and sunken on the Texas side [of the Rio Grande] sometime previous." On November 4, *minus Rackliffe*, "who returned in charge of the horses," the party set out for Laredo in this vessel, which had been "patched and boarded until pronounced sea-worthy" (26). In other words, Rackliffe only rode in the boat to Laredo and then returned by horseback. No historical evidence suggested that he had anything more to do with future surveys.

- Berlandier reported that “An American beaver trapper who has ascended most of that river assured me that it could be navigated with *chalanas*, or small boats, for almost three hundred leagues from its estuaries,” far upriver from Eagle Pass. (Johnson 12)
 - The account of one beaver trapper seems like thin evidence. Aside from one other article from the late 1880s, our research revealed no other accounts of trapping being a regular form of riverine commerce on the Rio Grande in the vicinity of Eagle Pass–Piedras Negras.
 - Berlandier was a naturalist on an expedition moving slowly along the river as part of boundary survey (not someone seeking a highway of commerce). *Chalanas*, which could be dragged upstream in shallow areas or out of the water and portaged around falls when obstacles were too great made good sense for smaller expeditions that sought to document specifics about the river, its banks, and the countryside along it. *Chalanas* also served as a useful means to cross small groups of people and supplies across the river at locations like Eagle Pass. However, these boats appear neither in images nor in words (in the historical documents HRA found) moving regularly upstream or downstream on the Rio Grande in the vicinity of Eagle Pass–Piedras Negras.

7 Signature

The opinions in this report are based on my education, training, and years of experience. I may revise these opinions as additional documents, testimony, or discovery responses become available.

A handwritten signature in black ink, appearing to read "Heather", followed by a long horizontal flourish.

Heather Lee Miller, PhD

Exhibit A: Resume

Exhibit B: Documents Cited and Consulted

Books and Articles

- “12th Quartermaster General, Brevet Major General Thomas S. Jesup,” U.S. Army Quartermasters Corps website. Updated December 13, 2023, https://quartermaster.army.mil/bios/previous-qm-generals/quartermaster_general_bio-jesup.html.
- Baldwin, Thomas, and J. Thomas. *New and Complete Gazetteer of the United States; Giving a Full and Comprehensive Review of the Present Condition, Industry, and Resources of the American Confederacy*. Philadelphia: Lippincott, Grambo, 1854. Retrieved from Internet Archive.
- Bartlett, John Russell. *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua*. 2 volumes. New York: D. Appleton & Company, 1854.
- Bender, A. B. “Opening Routes across West Texas, 1848–1850.” *Southwestern Historical Quarterly* 37, no. 2 (October 1933): 116–35.
- Berlandier, Jean Louis. *Journey to Mexico during the Years 1826 to 1834*. 2 Volumes. Translated by Sheila M. Ohlendorf et al. Austin: Texas State Historical Society, 1980.
- Bollaert, William. “Observations on the Indian Tribes in Texas.” Read before the Society, April 10, 1850, unattributed article, Box 4C336, Richard Yarborough Collection, Briscoe Center for American History, University of Texas, Austin.
- Bolton, Herbert E. *Spanish Exploration in the Southwest, 1542–1706*. New York: Scribner’s, 1916.
- . “The Spanish Occupation of Texas, 1519–1690.” *Southwestern Historical Quarterly* 16, no. 1 (July 1912): 1–26.
- Boyd, Mrs. Oresmus Bronson. *Cavalry Life in Tent and Field*. New York: J. Selwin Tait & Sons, 1894.
- Burleson, Mrs. Albert S. “Wandering Islands in the Rio Grande.” *National Geographic* (March 1913): 381–86.
- Carpenter, Kyle B. “A Failed Venture in the Nueces Strip: Misconceptions and Mismanagement of the Beales Rio Grande Colony, 1832–1836.” *Southwestern Historical Quarterly* 123, no. 4 (April 2020): 420–43.
- Castañeda, Carlos E. “Earliest Catholic Activities in Texas.” *Catholic Historical Review* 17, no. 3 (October 1931): 278–95.
- Caufield, H. S. “Beaver.” *Fur Trade Review* 25, no. 8 (March 1898): 138.

- Chipman, Donald E. "Espinosa, Isidro Felix de." *Handbook of Texas*, 1952. Updated January 1, 1995, <https://www.tshaonline.org/handbook/entries/espinosa-isidro-felix-de>.
- Costa, Paul. "Unbuilding a Bridge to the Twenty-First Century: The Coast Guard, Common Sense, the Law, and Sustainable Development." *Environmental Law* 31, no. 1 (Winter 2001): 95–123.
- Cox, I. J. "The Southwest Boundary of Texas." *Quarterly of the Texas State Historical Association* 6 (October 1903).
- Crimmins, Col. M. L. "Two Thousand Miles by Boat in the Rio Grande in 1850." *West Texas Historical and Scientific Society Bulletin*, no. 48 (December 1, 1933): 44–52.
- Davenport, Harbert. "Notes on Early Steamboating on the Rio Grande." *Southwestern Historical Quarterly* 49 (October 1945): 286–89.
- "Eagle Pass." *Encyclopedia Britannica*. Last updated May 2, 2024, <https://www.britannica.com/place/Eagle-Pass>
- "Fort Duncan." *Handbook of Texas*, 1952. Updated October 3, 2019, <https://www.tshaonline.org/handbook/entries/fort-duncan>.
- Garcia, Clotilde P. "Escandón, José de." *Handbook of Texas*, 1952. Updated October 1, 1995, <https://www.tshaonline.org/handbook/entries/escandon-jose-de>.
- Gerhardt, Karen, and Tom Fort. "Early Ranching on the Northern Frontier of New Spain." Accessed June 12, 2024, <https://www.texasbeyondhistory.net/st-plains/images/he14.html>.
- Gesick, E. John, Jr. *The Texas Kickapoo: Keepers of Tradition*. El Paso: Texas Western Press, 1996.
- Gesick, John. "The 1855 Callahan Raid into Mexico: Pursuing Indians or Hunting Slaves?" *Journal of Big Bend Studies* 19 (2007): 47–63.
- "Glimpses of South Texas—Life on the Rio Grande—1890." *Harper's Magazine* (June 1890), reprinted in *South Texan* (September 1953): 5, 14–16.
- González-Quiroga, Miguel Ángel. *War and Peace on the Rio Grande Frontier, 1830–1880*. Norman: University of Oklahoma Press, 2020.
- Graf, LeRoy P. "The Economic History of the Lower Rio Grande Valley, 1820–1875." PhD thesis, Harvard University, 1942.
- Hartmann, Clinton P. "Berlandier, Jean Louis." *Handbook of Texas*, 1952. Updated June 17, 2016, <https://www.tshaonline.org/handbook/entries/berlandier-jean-louis>.
- Hester, Thomas. "Aboriginal Watercraft on the Lower Rio Grande of Texas." *The Masterkey* 46 (1972).

- Hewitt, Harry P. "The Mexican Commission and Its Survey of the Rio Grande River Boundary, 1850–1854." *Southwestern Historical Quarterly* 94, no. 4 (April 1991): 555–80.
- "The History of El Camino Real de los Tejas." *TexasCounties.Net*. Updated October 29, 2015. <https://www.texascounties.net/articles/el-camino-real-de-los-tejas/history.htm>.
- Hogan, William Ransom. "The Life of Henry Austin." *Southwestern Historical Quarterly* 37, no. 3 (January 1934): 185–214.
- Horgan, Paul. *Great River: The Rio Grande in North American History*. 2 Volumes. Middletown, CT: Wesleyan University Press, 1984.
- International Boundary and Water Commission (IBWC). "Flow of the Rio Grande and Related Data from Elephant Butte Dam, New Mexico to the Gulf of Mexico, 1966." *Water Bulletin* 36 (1966).
- "John Love." *Cullum's Register*. Accessed May 25, 2024, <https://bit.ly/Cullum1072>.
- Kelley, M. G. Pat. "Navigation on the Rio Grande." *Handbook of Texas*, December 1, 1995. <https://www.tshaonline.org/handbook/entries/navigation-on-the-rio-grande>.
- Kelley, Pat. *River of Lost Dreams: Navigation on the Rio Grande*. Lincoln: University of Nebraska Press, 1986.
- Kelly, William R. "Navigation and Irrigation in the Mountain States: The 'Elephant Butte,' Colorado, New, Red River Decisions: 'Authorities.'" *Dicta* 22, no. 9 (September 1945): 204–13.
- Kennedy, J. Michael. "Kickapoos Live Under Texas Bridge: Tribe Clings Stubbornly to a Way of Life Long Past." *Los Angeles Times*, April 8, 1985. <https://www.latimes.com/archives/la-xpm-1985-04-08-mn-18512-story.html>.
- Kennedy, William. *Texas: The Rise, Progress, and Prospects of the Republic of Texas*. 2nd edition. 2 volumes. London: R. Hastings, 1841.
- Kerrigan, William T. "Race, Expansion, and Slavery in Eagle Pass, Texas, 1852." *Southwestern Historical Quarterly* 101, no. 3 (January 1998): 275–301.
- Kinsall, A. Ray. *Fort Duncan: Frontier Outpost on the Rio Grande: A Sesquicentennial Celebration Edition Compendium*. n.p.: self-published, March 27, 1999.
- "League." *Britannica Online Encyclopedia*, April 29, 2004. <https://www.britannica.com/science/league-measurement>.
- Legal Information Institute. "United States v. Rio Grande Dam & Irrigation Co. et al., Supreme Court." Accessed February 12, 2024, <https://www.law.cornell.edu/supremecourt/text/174/690>.

- McGrath, J. J., and Wallace Hawkins. "Perote Fort—Where Texans Were Imprisoned." *Southwestern Historical Quarterly*, 48, no. 3 (January 1945): 340–45.
- Metz, Leon C. "Rio Grande." *Handbook of Texas*, 1952. Updated June 13, 2020, <https://www.tshaonline.org/handbook/entries/rio-grande>.
- Meza, Rene Raymond. "Minera, TX." *Handbook of Texas*, May 1, 1995, <https://www.tshaonline.org/handbook/entries/minera-tx>.
- Montgomery, Cora [Jane McManus Cazneau]. *Eagle Pass; or, Life on the Border*. New York: George Putnam & Co., 1852.
- [Morfi, Juan Agustín.] "Diary of Morfi, 1778." In V. N. Zivley, *Field Notes and Detail Map of the Kings Highway From Pendleton's Ferry on Sabine River, to Paso de Francia on the Rio Grande, 1915–1916*. Texas State Library and Archives. Accessed May 28, 2024, <https://www.tsl.texas.gov/apps/arc/maps/maplookup/01891/>.
- "Morfi, Juan Agustín." *Handbook of Texas*, 1952. Updated April 1, 1995, <https://www.tshaonline.org/handbook/entries/morfi-juan-agustin>.
- Muckelroy, Anna. "The Indian Policy of the Republic of Texas, I." *Southwestern Historical Quarterly* 25, no. 4 (April 1922): 229–60.
- Opler, Morris E. "Lipan Apache Navigation." *The Masterkey* 49, no. 2 (1975).
- _____. "The Lipan and Mescalero Apache in Texas." Typescript, October 26, 1970, Box 4C336, Richard Yarborough Collection, Briscoe Center for American History, University of Texas, Austin.
- _____. *Myths and Legends of the Lipan Apache Indians*. New York: J. J. Augustin, 1940.
- Pierce, Frank Cushman. *Texas' Last Frontier: A Brief History of the Lower Rio Grande Valley*. Menasha, WI: Banta, 1917; rpt., Brownsville: Rio Grande Valley Historical Society, 1962.
- Pingenot, Ben E. "Eagle Pass, TX." *Handbook of Texas*, 1976. Updated September 21, 2023, <https://www.tshaonline.org/handbook/entries/eagle-pass-tx>.
- _____. "San Antonio Crossing." *Handbook of Texas*, 1976. Updated November 1, 1995, <https://www.tshaonline.org/handbook/entries/san-antonio-crossing>.
- _____, ed. *Paso del Águila: A Chronicle of Frontier Days on the Texas Border as Recorded in the Memoirs of Jesse Sumpter*. Austin: Encino Press, 1969.
- Barker, Eugene C., and James W. Pohl. "Texas Revolution." *Handbook of Texas*, 1952, rev. Mary L. Scheer, March 7, 2024, <https://www.tshaonline.org/handbook/entries/texas-revolution>.

- Reeve, Frank D. "The Apache Indians in Texas." *Southwestern Historical Quarterly* 50, no. 2 (October 1946): 189–219.
- Reid, Samuel C. *The Scouting Expeditions of McCulloch's Texas Rangers*. Philadelphia, G. B. Zieber and Co., 1847.
- Reyes-Martinez, Marcos A. "The Vara: A Standard of Length With a Not-So-Standard History." *Taking Measure Blog*, National Institute of Standards and Technology, October 11, 2019. <https://www.nist.gov/blogs/taking-measure/vara-standard-length-not-so-standard-history>.
- Rich, Burdett A., and Henry P. Farnham, eds. *The Lawyers Reports*. Annotated, Book 59. Rochester, NY: Lawyers' Cooperative, 1908.
- Robles, Vito Alessio. *Coahuila y Texas*. 1934.
- Schober, Otto. "Breve historia de Piedras Negras." 2005. Accessed June 12, 2024, Internet Archive Wayback Machine, <http://www.piedrasnegras.gob.mx/contenido05/conoce-pn/historia/>.
- Selcraig, Bruce. "Remembering the Alamo." *Smithsonian Magazine*, online. April 1, 2004, <https://www.smithsonianmag.com/history/remembering-the-alamo-101880149/>.
- Silverstein, Harry S., Jr. "The Legal Concept of Navigability v. Navigability in Fact." *Rocky Mountain Law Review* 19, no. 1 (1946): 49–64.
- Simsarian, James. "Diversion of Waters Affecting the United States and Mexico." *Texas Law Review* 17, no. 1 (December 1938): 27–61.
- Steck, Francis Borgia. "Forerunners of Captain De Leon's Expedition to Texas, 1670–1675." *Southwestern Historical Quarterly* 36, no. 1 (July 1932): 1–28.
- Stevens, John Austin, Jr. *The Valley of the Rio Grande: Its Topography and Resources*. New York: Wm. C. Bryant & Company, 1864.
- Sutton, Warner P. "The Elephant Dam and Reservoir Case." *Albany Law Journal* 61 (February 24, 1900): 116–21.
- Tilden, Bryant P., Jr. *Notes on the Upper Rio Grande: Explored in the Months of October and November 1846, On Board the U.S. Steamer Major Brown*. Philadelphia: Lindsay and Blakiston, 1847.
- Townsend, Stephen Andrew. "Steamboating on the Lower Rio Grande River." Master's thesis, Texas A&I University, 1989.
- "The Trail through History Land to Mexico, Via the Bridge at Roma, Texas, The Door to Mexico." Roma, Texas, Vertical File, Briscoe Center for American History, University of Texas, Austin.

Vigness, David M., trans. and ed. “Nuevo Santander in 1795: A Provincial Inspection by Félix Calleja.” *Southwestern Historical Quarterly* 75, no. 4 (April 1972): 461–506.

Walter, Matt. “Love on the Rio Grande: The 1850 Exploration by Captain Love.” *Journal of Big Bend Studies* 19 (2007): 35–45.

Webb, James Josiah. *Adventures in the Santa Fé Trade: 1844–1847*. Edited by Ralph P. Bieber. Glendale, CA: Arthur H. Clark, 1931.

Weddle, Robert S. “Croix, Teodoro de.” *Handbook of Texas*, 1952. Updated June 1, 1995, <https://www.tshaonline.org/handbook/entries/croix-teodoro-de>.

_____. *San Juan Bautista: Gateway to Spanish Texas*. Austin: University of Texas Press, 1968.

Werne, Joseph Richard. “Surveying the Rio Grande, 1850–1853.” *Southwestern Historical Quarterly* 94, no. 4 (April 1991): 535–54.

Zivley, V. N. *Field Notes and Detail Map of the Kings Highway From Pendleton’s Ferry on Sabine River, to Paso de Francier on the Rio Grande, 1915–1916*. Texas State Library and Archives. Accessed May 28, 2024, <https://www.tsl.texas.gov/apps/arc/maps/maplookup/01891/>.

Newspaper Articles

Baddour, Dylan. “Big Shock in Big Bend.” *Texas Observer*, June 29, 2022. <https://www.texasobserver.org/big-bend-río-grande-dry-water/>.

Chapman, W. W. “Exploration of the Rio Grande.” *Texas Monument* (La Grange), January 15, 1851.

“City of Eagle Pass Founded as a Texas Military Camp.” *Today’s Catholic*, July 31, 1981.

“Commissioners Court.” *Eagle Pass Guide*, May 16, 1896.

“Eagle Pass Established 1849 at Gates of Ft. Duncan.” *Eagle Pass News-Guide*, October 1949.

“Eagle Pass, Frontier Outpost–1873.” Photograph, Jubilee Edition. *Eagle Pass Daily Guide*, July 3–5, 1936, 1.

“Eagle Pass Laid Out 77 Years Ago.” *San Antonio Express*, June 21, 1927. Clipping, Eagle Pass, Vertical File, Briscoe Center for American History, University of Texas, Austin.

“Eagle Pass and Sister City Use Row Boat Service.” *San Antonio Evening News*, June 24, 1922.

“Flood Crest Past Rio Grande City, Little Loss There.” *San Antonio Evening News*, June 22, 1922.

“Gateway to Mexico; Eagle Pass; Piedras Negras.” *San Antonio Express*, December 3, 1930. Clipping, Eagle Pass, Vertical File, Briscoe Center for American History, University of Texas, Austin.

- “Government Worsted.” *El Paso Herald*, December 18, 1899, 1.
- Hastings, Karen. “A River’s Grand Heritage.” *Dallas Morning News*, August 7, 1994. Roma, Texas, Vertical File, Briscoe Center for American History, University of Texas, Austin.
- “How Cunningham Met Death.” *El Paso Herald*, July 18, 1901, 1.
- “Oil and Water Bring Wealth to Eagle Pass.” *San Antonio Express*, October 29, 1929. Clipping, Eagle Pass, Vertical File, Briscoe Center for American History, University of Texas, Austin.
- “The operators of . . .” *Eagle Pass Guide*, February 16, 1895.
- Perez, Lino, Jr. “Rio Grande City Dates from 1762.” *Rio Grande Herald*, January 25, 1946. Clipping, Rio Grande City, Texas, Vertical File, Briscoe Center for American History, University of Texas, Austin.
- “Rio Grande at Laredo Is at 25-Foot Stage; Expected at Rio Grande City Today.” *Galveston Daily News*, June 20, 1922, 1.
- “Se restablece el trafico en Eagle Pass.” *La Prensa* (San Antonio, TX), June 23, 1922, 5.
- Seymour, Harvey. “Our Texas Towns: Eagle Pass.” *San Antonio Express*, December 21, 1952, 12–13. Clipping, Eagle Pass, Vertical File, Briscoe Center for American History, University of Texas, Austin.
- Stevenson, Laura May. “Early History of Eagle Pass.” *Texas History Teachers’ Bulletin*, December 8, 1927. Clipping, Eagle Pass, Vertical File, Briscoe Center for American History, University of Texas, Austin.
- “State Geologist Dumble . . .” *San Antonio Daily Light*, May 25, 1889, 1.
- “The Steamer Laurel.” *American Flag* (Matamoros, Mexico), October 27, 1847, 2.
- “Survey of the Rio Grande.” *Houston Post*, May 21, 1901, [?].
- “To Navigate Rio Grande.” *El Paso Herald*, May 20, 1901, 1.

Government Documents

- An Act to Authorize the Construction of a Bridge over the Rio Grande River between the Cities of Eagle Pass, Texas, and Piedras Negras, Mexico.* 23 Stat. 29, May 29, 1884. U.S. Statutes at Large.
- An Act to Authorize the Eagle Pass Water Supply Company and the Compania Proveedora de Aguas de Ciudad Porforio Diaz to Connect their Water Works Communications across the Rio Grande River at Eagle Pass, Texas.* 26 Stat. 502, September 30, 1890. U.S. Statutes at Large.

An Act to Authorize the Texas-Mexican Electric Light and Power Company to Erect Wires across the Rio Grande River at Eagle Pass, Texas. 26 Stat. 495, September 27, 1890. U.S. Statutes at Large.

An Act Authorizing the Construction of Certain Public Works on Rivers and Harbors for Flood Control, and For Other Purposes. 49 Stat. 1570, June 22, 1936. U.S. Statutes at Large.

An Act Authorizing the Construction of Certain Public Works on Rivers and Harbors for Flood Control, and For Other Purposes. 55 Stat. 638, August 18, 1941. U.S. Statutes at Large.

An Act Authorizing the Construction of Certain Public Works on Rivers and Harbors for Flood Control, and For Other Purposes. 58 Stat. 887, December 22, 1944. U.S. Statutes at Large.

An Act Authorizing the Construction, Repair, and Preservation of Certain Public Works on Rivers and Harbors, and For Other Purposes. 49 Stat. 1028a, August 30, 1935. U.S. Statutes at Large.

“An Act to Create Maverick County Texas.” General Laws 71, February 2, 1856, Texas State Legislature, Sixth Legislature, Regular Session, General Laws of Texas 1855.

An Act to Extend the Time for the Construction of a Bridge across the Rio Grande between Eagle Pass, Texas, and Piedras Negras, Mexico. 44 Stat. 732, June 12, 1926. U.S. Statutes at Large.

An Act Granting Consent of Congress to the Eagle Pass and Piedras Negras Bridge Company for Construction of a Bridge across the Rio Grande between Eagle Pass, Texas. 44 Stat. 743, June 14, 1926. U.S. Statutes at Large.

An Act Granting Consent of Congress to the Eagle Pass and Piedras Negras Bridge Company for Construction of a Bridge across the Rio Grande between Eagle Pass, Texas, and Piedras Negras, Mexico. 42 Stat. 1482, March 4, 1923. U.S. Statutes at Large.

An Act: Making Appropriations for the Construction, Repair, and Preservation of Certain Public Works of Rivers and Harbors, and for other Purposes. 30 Stat. 1121, March 3, 1899, U.S. Statutes at Large.

Annual Report of the Chief of Engineers, United States Army, to the Secretary of War, for the Year 1889, in Four Parts. Part I. Washington, DC: GPO, 1889.

Annual Report of the Quartermaster General, Fiscal Year Ending June 30, 1850. Washington, DC: C. Alexander, 1851.

“Bridge across the Rio Grande.” H. Rept. 119, January 19, 1926, 69th Cong., 1st Sess. U.S. Congressional Serial Set.

“Bridge across the Rio Grande at Eagle Pass, Tex.” S. Rept. 657, April 19, 1926, 69th Cong., 1st Sess. U.S. Congressional Serial Set.

“Bridge over the Rio Grande River, between the City of Eagle Pass, Texas, and Piedras Negras, Mexico.” H. Rept. 800, March 18, 1884, 48th Cong., 1st Sess. U.S. Congressional Serial Set.

“Circular Instructions to Collectors, and Other Officers of the Customs.” September 13, 1852.

Folder Circular 1851–1852, Box 1, Record Group 36, U.S. Customs Service, New Orleans, Treasury Department Circulars, 1832–1838, 1849–1854, National Archives and Records Administration, Fort Worth, Texas.

The Coast Depot and Shipping Port of the Valley and the Provinces of Mexico Tributary Thereto: with the Government Map of that Region. New York: Pudney & Russell, 1850.

“Commission for the Equitable Distribution of the Waters of the Rio Grande.” Ca. 1915. File: Miscellaneous, Box 55, Record Group 76, Records of Boundary and Claims Commissions and Arbitrations, International Boundaries, U.S.–Mexican Border, National Archives and Records Administration, College Park, MD.

“A Discussion of the Best Mode to Render Immovable the Rio Grande Boundary and Conserve the Flood Waters.” Ca. 1914. Box 55, Record Group 76, Records of Boundary and Claims Commissions and Arbitrations, International Boundaries, U.S.–Mexican Border, National Archives and Records Administration, College Park, MD.

“Eagle Pass Water Supply Company.” H. Rept. 1360, April 10, 1890, 51st Cong. 1st Sess. U.S. Congressional Serial Set.

Emory, William H. “Memoir to Accompany the Map of Texas,” April 13, 1844, conveyed by John Tyler, “Message from the President of the United States,” April 29, 1844, “Presidential Message Communicating Treaty with Republic of Texas, and Documents thereon, Injunction of Secrecy Having Been Removed.” S. Doc. 341, May 20, 1844, 28th Cong., 1st Sess., U.S. Congressional Serial Set, 1–120.

_____. *Report on the United States and Mexican Boundary Survey, Made under the Direction of the Secretary of the Interior*, Volume 1. Washington, DC: Cornelius Wendell, Printer, 1857.

“Equitable Distribution of the Waters of the Rio Grande. Message from the President of the United States, transmitting, in Response to Resolution of the Senate of February 26, 1898, Reports from the Secretary of State, the Secretary of War, the Secretary of the Interior, and the Attorney-General, with Accompanying Papers, Relative to the Equitable Distribution of the Waters of the Rio Grande River.” S. Doc. 229, April 7, 1898, 55th Cong., 2d Sess.

“Equitable Use of the Waters of the Rio Grande below Fort Quitman, Tex. Statement of Mr. C. H. Pease, Secretary Lower Rio Grande Valley Water Users’ Association, McAllen, Tex.” *Hearings before the Committee on Foreign Affairs, House of Representatives, Sixty-Eighth Congress, First Session, on H. R. 8371, A Bill Providing for a Study Regarding the Equitable Use of the Waters of the Rio Grande Below Fort Quitman, Tex., in Cooperation with the United States of Mexico, April 17, 1924.* Washington, DC: GPO, 1924.

- “The Failure of Citizens State Bank of Carrizo Springs, Texas, and Related Financial Problems.” *Hearings before the Subcommittee on Financial Institutions, Supervision, Regulation and Insurance of the Committee on Banking, Currency, and Housing, House of Representatives, Ninety-Fourth Congress, Second Session, Part 1, November 30; December 1, 1976.* Washington, DC: GPO, 1977.
- Freeman, W. B., and R. H. Bolster. *Surface Water Supply of the United States, 1909.* Part 7, *Lower Mississippi Basin*, Water Supply Paper 267. Washington, DC: GPO, 1909.
- “History of the Rio Grande Dam and Irrigation Company, Etc.” S. Doc. 104, January 22, 1901, 56th Cong., 1st Sess. U.S. Congressional Set.
- Hughes, George W. *Memoir Descriptive of the March of a Division of the United States Army, under the Command of Brigadier General John E. Wool, from San Antonio de Bexar, in Texas, to Saltillo, in Mexico.* S. Ex. Doc. 32, [August 29,] 1846, 31st Cong., 1st Sess.
<https://shareok.org/bitstream/handle/11244/35459/Senate-31-1-Executive-32-Serial-558.pdf?sequence=1&isAllowed=y>.
- Keeler, Karl F. “Report on Present and Prospective Use of Water in the United States on the Rio Grande below Fort Quitman, Tex.” August 9, 1929. Appendix 10 of *Report on the American Section of the International Water Commission United States and Mexico.* H. Doc. 359, April 21, 1930, 71st Cong., 2d Sess. Washington, DC: GPO, 1930.
- “Lease or Sale of Certain Lands and Buildings, Camp Eagle Pass, Tex.” H. Rept. 1429, May 25, 1932, 72d Cong., 1st Sess. U.S. Congressional Serial Set.
- “Lease or Sale of Certain Lands and Buildings, Camp Eagle Pass, Tex.” H. Rept. 1664, May 17, 1934, 73d Cong., 2nd Sess. U.S. Congressional Serial Set.
- “Lease or Sale of Certain Lands and Buildings, Camp Eagle Pass, Tex.” S. Rept. 13, June 6, 1934, 73d Cong., 2nd Sess. U.S. Congressional Serial Set.
- “Military Post at Eagle Pass, Tex.” H. Rept. 1215, April 3, 1890, 51st Cong., 1st Sess. U.S. Congressional Serial Set.
- Mills, Anson, Colonel Third Cavalry, Commissioner, to Secretary of States, January 7, 1897. In Item 9, Dr. Nathan Boyd to the Secretary of State, December 21, 1990. *Message from the President of the United States transmitting a Report from the Secretary of State, with Accompanying Papers, in Regard to the Equitable Distribution of the Waters of the Rio Grande.* S. Doc. 154, February 14, 1903, 57th Cong., 2d Sess., 81–82.
- Mills, Anson, International Water Boundary Commissioner, to Secretary of State. “Demarcation of the Boundary on the Two International Bridges Connecting Eagle Pass, Texas, and Ciudad Porfirio Díaz, Coahuila.” *Proceedings of the International (Water) Boundary Commission*, 1897, National Archives and Records Administration, College Park, MD.

- “Report to Accompany S. 3050.” S. Rept. 556, March 28, 1890, 51st Cong. 1st Sess. U.S. Congressional Serial Set.
- Report of the American Section of the International Water Commission United States and Mexico.* H. Doc. 359, April 21, 1930, 71st Cong., 2d Sess. Washington, DC: GPO, 1930.
- Scott, Robert N., prep. *The War of the Rebellion: A Compilation of Official Records of the Union and Confederate Armies*, Series I, Volume 26, Part II. Washington, DC: GPO, 1889.
- Texas Secretary of State. *Biennial Report*. December 1888. Austin: State Printing Office, 1889. Google Books.
- _____. *Biennial Report*. 1894. Austin: State Printing Office, 1895. Google Books.
- “Treaty of Guadalupe Hidalgo.” 9 Stat. 922, February 2, 1848. *Treaties and Other International Acts of the United States of America*, Volume 5, *Documents 122–150: 1846–1852, Document 151: 1799*. Edited by Hunter Miller. Washington, DC: U.S. Government Printing Office, 1937.
- Trowbridge, A. C. *Tertiary and Quaternary Geology of the Lower Rio Grande Region, Texas*. Geological Survey Bulletin 837. H. Doc. 111, 72d Cong., 1st Sess. Washington, DC: U.S. Government Printing Office, 1932.
- U.S. Army Corps of Engineers. *1975 Navigability Study, Rio Grande, Tributaries, and Lakes, Rio Grande Basin, River Mile 275.5 to 610.0*. March 1975. Appended to Joseph L. Shelnett, “Declaration,” *U.S. v. Greg Abbott et al.*, Civil Action No. 1:23-cv-00853, filed August 16, 2023, in the United States District Court for the Western District of Texas, Austin Division. Received from TX-OAG.
- _____. “Reconnaissance Sketch of the Rio Grande, from R.R. Bridge at Eagle Pass, Texas, to a Point Opposite the Bates Ranch,” to accompany Lieut. T. D. Finley, “Reconnaissance of the Rio Grande,” October 16, 1916. NARA Online.
- _____. “Reconnaissance Sketch of the Rio Grande, from R.R. Bridge at Eagle Pass, Texas, to a Point Opposite the Río de Los Soldados,” to accompany Lieut. E. A. Bethel, “Reconnaissance of the Rio Grande,” September 21, 1916. NARA Online.
- _____, Fort Worth District. “Navigable Waters of the United States in the Fort Worth, Albuquerque, and Tulsa Districts within the State of Texas.” December 20, 2011. <https://www.swf.usace.army.mil/Portals/47/docs/regulatory/NavList2011.pdf>.
- U.S. Bureau of Foreign Commerce. *Highways of Commerce: The Ocean Lines, Railways, Canals, and Other Trade Routes of Foreign Countries*. Special Consular Report 12. Washington, DC: GPO, 1895.
- U.S. Department of Commerce and Labor, Bureau of Manufactures. “Motor Machines.” *Special Consular Reports* 40, Pt. 2, pp. 79–81. Washington, DC: GPO, June 1980.

U.S. Office of Chief of Engineers, comp. *List of Bridges over the Navigable Waters of the United States 1925*. Washington, DC: GPO, 1926.

_____. *List of Bridges over the Navigable Waters of the United States, July 1, 1941*. Rev. 1948. Washington, DC: GPO, 1948. HathiTrust.

U.S. War Department, Surgeon-General's Office. *Report on the Hygiene of the United States Army, with Descriptions of Military Posts*. May 1, 1875. Washington, DC: GPO, 1875.

Zayas, E., and J. D. Dillard. "Measurement of Flow of the Rio Grande and Tributaries, with Reference to the Probable Effect on the Navigability of the Lower River of the Proposed Obstruction of the Flow by the Rio Grande Dam and Irrigation Company," Engineers Report, November 11, 1901. *Proceedings of the International (Water) Boundary Commission*, 1901, pp. 405–24. National Archives and Records Administration, College Park, MD.

Court Documents

Daniel Ball v. U.S. 77 U.S. (10 Wall.) 557, 563. 1870.

Exhibit 8: "Rio Grande," *Handbook of Texas*, Volume 2 (Texas Historical Association, 1952), n.p.

Exhibit 11: Laura Gilpin, *The Rio Grande, River of Destiny: An Interpretation of the River, the Land, and the People* (1949), excerpt.

Exhibit 12: "River Navigation," *Handbook of Texas*, Volume 2 (Texas Historical Association, 1952), n.p.

Exhibit 13: Extract from British Correspondence Concerning Texas, edited by Ephriam Douglass Adams. *Southwestern Historical Quarterly* 18 (July 1914): 83–?.

Exhibit 14: Extracts from V. N. Lott and V. M. Fenwick, *People and Plots on the Rio Grande* (1957).

Exhibit 16: Extracts from "El Dorado," chapter 27, Paul Horgan, *Great River: The Rio Grande in North American History*, Volume 2 (1954), misc.

Exhibit 17: Extract from Edna McDaniel White, *East Texas Riverboat Era and Its Decline* (1965).

Exhibit 19: Convention on Distribution of Waters of Rio Grande, signed May 21, 1906, Entered into Force January 16, 1907. 34 Stat. 2953; Treaty Series 455. *Treaties and Other International Agreements of the United States of America, 1776–1949*, Volume. 9, pp. 924–26. Compiled by Charles T. Bevans. Washington, DC: Department of States, March 1972.

Exhibit 20: Peace, Friendship, Limits, and Settlement (Treaty of Guadalupe Hidalgo), signed February 2, 1848, Entered Into Force May 30, 1848. *Treaties and Other International Agreements of the United States of America, 1776–1949*, Volume 9, pp. 791–96. Compiled by Charles T. Bevans. Washington, DC: Department of States, March 1972.

Exhibit 21: Boundaries (Gadsden Treaty), signed December 30, 1853, Entered into Force June 30, 1854, in *Treaties and Other International Agreements of the United States of America, 1776–1949*, Volume 9, pp. 812–14. Compiled by Charles T. Bevans. Washington, DC: Department of States, March 1972.

Exhibit 22: Boundary Waters: Rio Grande and Rio Colorado, signed November 12, 1884, Entered into Force September 13, 1886. 24 Stat. 1011; Treaty Series 226. *Treaties and Other International Agreements of the United States of America, 1776–1949*, Volume 9, pp. 865–67. Compiled by Charles T. Bevans. Washington, DC: Department of States, March 1972.

Exhibit 24: Extract from “Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande,” signed February 3, 1944, entered into force November 8, 1945. 59 Stat. 1219; Treaty Series 994. *Treaties and Other International Agreements of the United States of America, 1776–1949*, Volume 9, pp. 1166–72. Compiled by Charles T. Bevans. Washington, DC: Department of States, March 1972.

Exhibit 25: Extract from “Rio Grande Water Apportionment.” *Handbook of Texas*, Volume 2 (Texas Historical Association, 1952), n.p.

Exhibit 26: “Navigable Status of Certain Waterways in Galveston, Texas, District.” Ca. 1950?

“Findings of Fact, Eagle Pass & Piedras Negras Bridge Company, Petitioner v. Commissioner of Internal Revenue, Respondent, Docket No. 42460.” *U. S. Board of Tax Appeals* 23 (August 28, 1931): 1338–43.

Johnson, Benjamin H. “Expert Report Regarding the Historical Navigability of the Lower Rio Grande, Particularly in the Eagle Pass–Piedras Negras Area.” U.S. District Court, Western District of Texas No. 1:23-CV-853-DAE, *U.S.A. v. Greg Abbott, Governor of the State of Texas, and the State of Texas*.

Leovy v. United States. 177 U.S. 621, 632 (1900).

Peña, Jennifer T. “Declaration and Supplement.” *U.S. v. Greg Abbott et al.*, Civil Action No. 1:23-cv-00853, filed August 15, 2023, in the United States District Court for the Western District of Texas, Austin Division. Received from TX-OAG.

Shelnutt, Joseph L. “Declaration.” *U.S. v. Greg Abbott et al.*, Civil Action No. 1:23-cv-00853, filed August 16, 2023, in the United States District Court for the Western District of Texas, Austin Division. Received from TX-OAG.

“Statement of the Case.” *United States v. Rio Grande Dam and Irrigation Company*, Appeal from the Supreme Court of the Territory of New Mexico, argued November 7, 8, 1898, decided May 22, 1899, October Term, 1898. 174 U.S. 690, U.S. Supreme Court. Hein Online.

Tugwell et al. v. Eagle Pass Ferry Co. Supreme Court of Texas. 9 S.W. 120, June 19, 1888. <https://case-law.vlex.com/vid/tugwell-v-eagle-pass-890668430>.

Correspondence

Bee, H. P., to Hon. J. A. Quinterro, November 9, 1863. In *The War of the Rebellion: A Compilation of Official Records of the Union and Confederate Armies*, Series I, Volume 26, Part 2, prepared by Robert N. Scott, pp. 399–400. Washington, DC: GPO, 1889.

Burbank, Capt. S[Sidney], to Lieut. Col. [T.?] Morris, Commander Rio Grande District, April 19, 1849, handwritten copy by W. W. Chapman. File: “Love, Harry, Keel Boat,” Box 59, Entry 1403: Vessel Files 1834–1900, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

Chapman, Bvt. Major W. W., to Major E. B. Babbitt, Chief Quartermaster, 8th Dept., January 24, 1850. File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

Chapman, Bvt. Maj. W. W., to Maj. E. B. Babbitt, September 14, 1850. File: “Brazos-Santiago 1850 (1),” Box 200, Entry (NM-81) 225: Consolidated Correspondence File, 1794–1915, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

Chapman, Bvt. Maj. W. W., to Maj. General George Gibson, February 10, 1852. File: “Brazos-Santiago 1852,” Box 200, Entry (NM-81) 225: Consolidated Correspondence File, 1794–1915, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

Chapman, Major W. W., to Col. [T. J.?] Hunt, June 15, 1849. File: “Brazos-Santiago (1849) (4),” Box 200, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

Chapman, Major W. W., to General T. S. Jesup, March 15, 1849. File: Brazos-Santiago 1849 (3), Box 200, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

Chapman, Bvt. Maj. W. W., to Major General T. S. Jesup, Quartermaster General, May 16, 1849. File: “Love, Harry, Keel Boat,” Box 59, Entry 1403: Vessel Files 1834–1900, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

- Chapman, Bvt. Maj. W. W., to Maj. General T. S. Jesup, October 30, 1849. File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.
- Chapman, Bvt. Major W. W., to General T. Jesup, Quartermaster General, September 5, 1850. In *Annual Report of the Quartermaster General, Fiscal Year Ending June 30, 1850*, pp. 209–14. Washington, DC: C. Alexander, 1851.
- Chapman, Bvt. Major W. W., to General Jesup, Quartermaster General, June 17, 1851. File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.
- Chapman, Bvt. Major W. W., to General T. Jesup, Quartermaster General, July 31, 1855. File: “Chapman, W. W. (Maj.) (1855),” Box 296, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.
- Chapman, Major W. W., to Capt. Kingsbury, March 15, 1849. File: Brazos-Santiago 1849 (3), Box 200, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.
- Chapman, Major W. W., to General Whiting, A. Quartermaster General, July 22, 1851. File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.
- Hogg, Capt. George, Commanding Post, Fort Duncan, to Lt. L. Caziare, A. A. A. General, January 31, 1868. Vol. 1 (of 6), Entry 135-1: Letters Sent, March 1869–August 1883 (Fort Duncan, Texas), Record Group 393, Part 5: Records of U.S. Army Continental Commands, National Archives and Records Administration, Washington, DC.
- Johnson, Lt. Comdr. H. L., to Secretary of the Navy, March 4, 1876. Vol. 1, E. (I-18) 482: Letters Sent by Officers Commanding Naval Forces in Rio Grande, Record Group 45: Naval Records Collection of the Office of Naval Records and Library, National Archives and Records Administration, Washington, DC.
- Kimmey, M. M., U.S. Vice Consul, to Friend, November 4, 1862. National Archives and Records Administration. <https://catalog.archives.gov/id/6016163?objectPage=3>.

- Kingsbury, Capt. Daniel M., to Major W. W. Chapman, May 18, 1849. File: “Love, Harry, Keel Boat,” Box 59: Logan (U.S.A.T.)–Maggie, Entry 1403: Vessel Files 1834–1900, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.
- Magruder, J. Bankhead, Major-General, to James Sorley, December 21, 1863. In *The War of the Rebellion: A Compilation of Official Records of the Union and Confederate Armies*, Series I, Volume 26, Part 2, prepared by Robert N. Scott, pp. 520–22. Washington, DC: GPO, 1889.
- [Mann?], Bvt. Major General, to Secretary of War, March 23, 1878. File: Eagle Pass Ferry Boat Company (1878), Box 542: Eachson, James to Earhart, Thomas J., Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.
- Michler, N., Lieutenant, to William H. Emory, August 19, 1853. Folder 54, Emory Papers.
- Mills, Anson, International Water Boundary Commissioner, to Secretary of State, December 17, 1901. In *Proceedings of the International (Water) Boundary Commission*, 1904, p. 404, National Archives and Records Administration, College Park, MD.
- Moore, R. M., [Spl?] Insp. in Charge, 11 Dist., to Hon. F. A. Vaughn, Saluria District, April 1, 1890. Vol. 1890–1891, Box 1, Record Group 36, U.S. Customs Service, Letters Received, 1880–1899, Department of the Treasury, Customs Service, Collection District of Eagle Pass, Texas, 1880–1913, National Archives and Records Administration, Fort Worth, Texas.
- Remey, Geo. [C.?], to Secretary of the Navy, November 19, 1875. Vol. 1, E. (I-18) 482: Letters Sent by Officers Commanding Naval Forces in Rio Grande, Record Group 45: Naval Records Collection of the Office of Naval Records and Library, National Archives and Records Administration, Washington, DC.
- Sheard, Col. Joe H., District Engineer, to U.S. Army Corps of Engineers, Headquarter, March 31, 1975, conveying U.S. Army Corps of Engineers, *1975 Navigability Study, Rio Grande, Tributaries, and Lakes, Rio Grande Basin, River Mile 275.5 to 610.0*, March 1975. Appended to Joseph L. Shelnutt, “Declaration,” *U.S. v. Greg Abbott et al.*, Civil Action No. 1:23-cv-00853, filed August 16, 2023, in the United States District Court for the Western District of Texas, Austin Division. Received from TX-OAG.
- Thomas, Lorenzo, to Simon Cameron, April 5, 1861, Report on Strength and Placement of U.S. Army. Abraham Lincoln Papers: Series 1, General Correspondence, 1833–1916, Library of Congress. <https://www.loc.gov/resource/mal.0881800/?sp=3&st=image&r=-0.833,-0.012,2.667,1.769,0>.
- Turner, Edmund P., to Brigadier-General Bee, Commander First Division, December 5, 1863. In *The War of the Rebellion: A Compilation of Official Records of the Union and Confederate Armies*, Series I, Volume 26, Part 2, prepared by Robert N. Scott, p. 483. Washington, DC: GPO, 1889.

Vidaaurri, Santiago, to General Kirby Smith, February 2, 1864. Folder: Devine Thomas J Legal Documents 1861–1862, Box 2D55, Thomas J Devine Papers, Brisco Center for American History, University of Texas, Austin.

Vidaaurri, Santiago, to General Kirby Smith, February 24, 1864. Folder: Devine Thomas J Legal Documents 1861–1862, Box 2D55, Thomas J Devine Papers, Brisco Center for American History, University of Texas, Austin.

Other Materials

“Abstract of Articles Transferred to 1st Lt. P. W. Alley [?] 3rd Infantry a. a. 2 PM at Brownsville Texas in the Quarter Ending on the 31st March 1861.” Packet No. 8, Folder: Miscellaneous Papers, Box 2H431, Fort Duncan Collection, Briscoe Center for American History, University of Texas, Austin.

Amon Carter Museum. “Eagle Pass in 1887.” Texas Bird’s Eye Views. Accessed May 4, 2024, http://www.birdseyeviews.org/zoom.php?city=Eagle%20Pass&year=1887&extra_info=.

Badger, J. Ryan. “Texas in the Southwestern Fur Trade, 1718–1840.” Graduate student report no. 1277. Utah State University, 2018.
<https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=2302&context=gradreports>.

Chapman, Major W. W. “Report of Arrivals and Departures of Vessels at Brazos-Santiago for March 1849.” File: Brazos-Santiago 1849 (3), Box 200, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

_____. “Report of Public Steamboats and Other Craft in the District of the Rio Grande.” June 19, 1849. File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

_____. “Report of Public Steamboats and Other Craft in the District of the Rio Grande.” July 6, 1849. File: “Chapman, W. W. (Maj.) (1849–1850),” Box 296, Entry (NM-81) 225: Consolidated Correspondence Files, Record Group 92: Office of the Quartermaster General, National Archives and Records Administration, Washington, DC.

Creaton, John. “An Autobiography 1856–1932.” No Folder, Box 2Q490, John Creaton Papers, Briscoe Center for American History, University of Texas, Austin.

“Eagle Pass, Birdseye View.” Map, 1887. Folder: OP9, Photographs and Prints Collection, Briscoe Center for American History, University of Texas, Austin.

“Eagle Pass, Texas—Bridge at, Rec’d June 6, 1942, from Biggs Field, Texas.” NARA Online.

Edwards, Elmer J. Photograph Collection. Briscoe Center, UTA.

Koch, Augustus. *Bird's Eye View of Eagle Pass Maverick Co, Texas*. 1887. Folder: OP9, Photographs and Prints Collection, Briscoe Center for American History, University of Texas, Austin.

Krumm, H. Z. "Map of Eagle Pass, Texas, and Vicinity . . . U.S. Military Post, Target Range, and Pumping Station, August 1904, Traced in Engr. Office, S.W. Division, Oklahoma City, O.T." October 5, 1904. NARA Online.

"Laredo Texas." Folder: OP5, No Box, PPC Collection, Briscoe Center for American History, University of Texas, Austin.

Marché, Konen. *Map of Texas Shewing the Grants in Possession of the Colorado and Red River Land Compy*. 1835. University of Texas at Arlington Libraries Special Collections, Gift of Virginia Garrett.

Matamoros, Mexico, City Hall. [Certificate allowing Henry Austin to operate *barques de vapor* (steamboats) or *barques cargados* (cargo boats) from Matamoros (*este villa*) to Laredo.] ca. 1829/1830. Folder: 1830, Austin, Henry, Authorization [to Operate Ferry], March 1, 1830, Box 3N175, Eberstadt Collection, Briscoe Center for American History, University of Texas, Austin

"Monthly Return of Public Animals, Wagons, Harnesses, and other means of transportation in possession of . . . Fort Duncan, Texas During the Month of August 1860 [Form No. 5]." Packet No. 9, Folder: Miscellaneous Papers, Box 2H431, Fort Duncan Collection, Briscoe Center for American History, University of Texas, Austin.

"Reconnaissance [*sic*] of the Rio Grande River, Made and Drawn by Daniel M. Kingsbury, by Order of Major W. W. Chapman, [Quartermaster], Rio Grande Frontier, during the Months of March and April 1949." Map. NARA Online. <https://catalog.archives.gov/id/353765506>.

"Records Relating to Goods Warehoused and Withdrawn for Transportation to Other Districts, June 1901–1910." Small horizontal volume, Record Group 36, Department of the Treasury, Customs Service, Collection District of Eagle Pass, Texas, 1880–1913, National Archives and Records Administration, Fort Worth, TX.

"Records Relating to Warehousing Bonds and Withdrawals, March 10, 1910–September 1912." Red, leather-bound volume, large tan canvas-covered volume, Record Group 36, Department of the Treasury, Customs Service, Collection District of Eagle Pass, Texas, 1880–1913, National Archives and Records Administration, Fort Worth, TX.

"Records Relating to Withdrawals, March 16, 1910–October 24, 1912." Large leather-bound volume, Record Group 36, Department of the Treasury, Customs Service, Collection District of Eagle Pass, Texas, 1880–1913, National Archives and Records Administration, Fort Worth, TX.

“Report of Persons and Articles Hired en Route to Brazos Santiago Texas during the Month of March 1861 [Form 2].” Packet No. 2, Folder: Miscellaneous Papers, Box 2H431, Fort Duncan Collection, Briscoe Center for American History, University of Texas, Austin.

“Report of Persons and Articles Hired en Route to Coast during the Month of March 1861 [Form 2].” Packet No. 2, Folder: Miscellaneous Papers, Box 2H431, Fort Duncan Collection, Briscoe Center for American History, University of Texas, Austin.

“Report of Persons and Articles Hired en Route to Coast Texas during the Month of March 1861 [Form 2].” Packet No. 2, Folder: Miscellaneous Papers, Box 2H431, Fort Duncan Collection, Briscoe Center for American History, University of Texas, Austin.

“Roma National Historic Landmark District.” Brochure, Roma, Texas, Vertical File, Briscoe Center for American History, University of Texas, Austin.

Sanborn Map Company. Eagle Pass 1894 Sheet 2, map, 1894. Portal to Texas History.
<https://texashistory.unt.edu/ark:/67531/metapth545350/m1/1/>.

_____. Eagle Pass 1905 Sheet 4, map, 1905. Portal to Texas History.
<https://texashistory.unt.edu/ark:/67531/metapth544434/m1/1/>.

_____. Eagle Pass 1916 Sheet 7, map, 1916. Portal to Texas History.
<https://texashistory.unt.edu/ark:/67531/metapth547472/m1/1/>.

_____. Eagle Pass 1924 Sheet 1, map, 1924. Portal to Texas History.
<https://texashistory.unt.edu/ark:/67531/metapth552881/>.

Smith, G. [A.?], Chief Quartermaster, Headquarters, Department of Texas. “Map of Camp Eagle Pass at Eagle Pass, Texas.” March 13, 1895. NARA Online.

Smith, Brvt. Maj. Larkin, Camp Hudson, Texas. “List of Quartermaster’s Stores, [Form] No. 42.” August and September 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.

_____. “Monthly Return of Public Animals, Wagons, Harness, and Other Means of Transportation in Possession of, [Form] No. 5.” April 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.

_____. “Monthly Return of Public Animals, Wagons, Harness, and Other Means of Transportation in Possession of, [Form] No. 5.” June 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.

_____. “Monthly Return of Public Animals, Wagons, Harness, and Other Means of Transportation in Possession of, [Form] No. 5.” July 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.

- _____. “Monthly Return of Public Animals, Wagons, Harness, and Other Means of Transportation in Possession of, [Form] No. 5.” August 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.
- _____. “Monthly Return of Public Animals, Wagons, Harness, and Other Means of Transportation in Possession of, [Form] No. 5.” October 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.
- _____. “Monthly Return of Public Animals, Wagons, Harness, and Other Means of Transportation in Possession of, [Form] No. 5.” November 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.
- _____. “Monthly Summary Statement.” June 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.
- _____. “Roll of Noncommissioned Officers and Privates Employed on Extra Duty as Mechanics and Laborers, [Form] No. 3.” May 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.
- _____. “Roll of Noncommissioned Officers and Privates Employed on Extra Duty as Mechanics and Laborers, [Form] No. 3.” June 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.
- _____. “Roll of Noncommissioned Officers and Privates Employed on Extra Duty as Mechanics and Laborers, [Form] No. 3.” November 1860. Volume/Box 2.325/V16, John Twohig Papers, 1835–1944, Briscoe Center for American History, University of Texas, Austin.
- “Statement of Forage Issued to and Consumed by the Public Animals under My Direction en Route to Coast Texas during the month of March 1861 [Form 34].” Packet No. 3, Folder: Miscellaneous Papers, Box 2H431, Fort Duncan Collection, Briscoe Center for American History, University of Texas, Austin.
- Sumpter, Jesse. “Life of Jesse Sumpter, the Oldest Citizen of Eagle Pass, Texas. Commenced to Be Written May 30, 1902.” Typescript, Briscoe Center for American History, University of Texas, Austin.
- Texas Historical Commission. “California Camp, Atlas Number 5323000629.” Historical Marker, placed 1969. Texas Historical Sites Atlas.
<https://atlas.thc.texas.gov/Details?fn=print&atlasnumber=5323000629>.
- _____. “Eagle Pass Coal Mines, Atlas Number 5323001327.” Historical Marker, placed 1975. Texas Historical Sites Atlas.
<https://atlas.thc.texas.gov/Details?fn=print&atlasnumber=5323001327>

_____. “Eagle Pass, C.S.A., Atlas Number 5323001326.” Historical Marker, placed 1963. Texas Historical Sites Atlas.
<https://atlas.thc.texas.gov/Details?fn=print&atlasnumber=5323001326>.

_____. “Jesse Sumpter, Atlas Number 5323002750.” Historical Marker, placed 1969. Texas Historical Sites Atlas.
<https://atlas.thc.texas.gov/Details?fn=print&atlasnumber=5323002750>.

Texas Municipal League. “City of Eagle Pass.” *TML City Officials Directory*, accessed June 12, 2024, <https://directory.tml.org/profile/city/1257>.

U.S. Boundary Commission. Unlabeled and unpaginated notebooks. Fieldbooks of Surveys of the U.S.–Mexican Boundary, 1849–1852, Box No.1, Record Group 76, Records of Boundary and Claims Commissions and Arbitrations. National Archives and Records Administration, College Park, MD.

_____. Miscellaneous Correspondence. Folder: 7.42, Legal—Navigation—Rio Grande, 1897–1911, Box 15. Administration Department, Subject Files, 1913–1934. Record Group 76, Records of Boundary and Claims Commissions and Arbitrations. National Archives and Records Administration, College Park, MD.

U.S. Department of Treasury, Customs Service. Vol. 1890–1891, Box 1, 1886–1887, 1890–1891, Collection District of Eagle Pass, Texas, 1880–1913, U.S. Customs Service, Letters Received, 1880–1899. Record Group 36, Department of the Treasury, Customs Service, National Archives and Records Administration, Fort Worth, Texas.